

AMERICAN RAILROAD JOURNAL, AND ADVOCATE OF INTERNAL IMPROVEMENTS.

PUBLISHED WEEKLY, AT No. 35 WALL STREET, NEW-YORK, AT THREE DOLLARS PER ANNUM, PAYABLE IN ADVANCE.

D. K. MINOR, EDITOR.]

SATURDAY, SEPTEMBER 12, 1835.

[VOLUME IV.—No. 36.

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AMERICAN RAILROAD JOURNAL.

NEW-YORK, SEPTEMBER 12, 1835.

NEW-YORK AND ERIE RAILROAD.—We hail with heart-felt satisfaction the approaching commencement of this noble work. It will be seen by the following notice, that the Company are prepared to put under contract **FOURTY MILES** of the road; and we are assured by the Engineer that as much more will be ready for contract this fall. Thus it will be seen that the Company turn neither to the right nor to the left, but with a degree of firmness characteristic of the gentlemen who have embarked in the enterprize, they *go a-head*; and the result of their independence, firmness and perseverance, will be, to overcome sectional and local opposition, and to convince all, who have sense and honesty enough to be convinced of any thing, that their aim is to promote the *general*, and their *country's* prosperity.

NEW-YORK AND ERIE RAILROAD.
To CONTRACTORS.—Proposals will be received at the Office of this Company, No. 12 Wallstreet, in the City of New York, until the 5th of November next, for the grading of forty miles of the Railroad, along the Delaware River, and extending from the mouth of the Callikoon Creek (about sixty miles west of Newburgh) to the village of Deposit, in the County of Delaware. This portion of the work is now staked out in convenient sections, generally averaging one mile in length. Plans and profiles of the line, and printed forms of the contracts, (in which stipulations will be inserted prohibiting the use of ardent spirits) will be ready for exhibition on, and after, the 20th of September instant, at the Office of the Division Engineer of the Eastern Division of the New York and Erie Railroad, in the village of Deposit. The Company reserve the privilege of accepting only such proposals as they may deem for their advantage.

JAMES G. KING, President.
New York, Sept. 8th, 1835.

We give in this number an account, with engravings, of Daglish's Prize Rail—and it is to be hoped that some of our numerous Railroad Companies will test its value.

We owe an apology to our punctual correspondent at Avoyille Ferry for the apparent delay of his report for June, but it was received only a few days previous to that for July. We hope, therefore, that he will not discontinue his much esteemed favors—and it would be highly gratifying if he would give a brief description of the country in which he resides, and also of the adjoining territory of Texas, especially in the vicinity of *Nacogdoches*.

We have more than once been desired, by our readers, to ask P. G. V. for this information, which we now take the liberty of doing.

ELIZABETHTOWN AND SOMERVILLE, N. J., RAILROAD.—We have been favored with a Report of the Committee of the Board, in relation to the above named railroad, and its continuation to Belvidere; where it is to cross the Delaware and unite with the *Susquehanna and Delaware Railroad*, to Pittston, on the Susquehanna; and from thence to the New-York line, to connect probably with the New-York and Erie Railroad, either at Binghamton, or Tioga Point, or both,—as may be hereafter deemed expedient.

From the following abstract of the Report, it appears that the route is altogether feasible and highly eligible—that it passes through a section of country in New-Jersey rich, not only in agricultural productions, but also in minerals and manufacturing privileges—that it will open a direct and easy communication both with the *anthracite* and *bituminous* coal regions of Pennsylvania, and at the same time divert to this city much of the trade which now descends the Susquehanna to Baltimore, and the Delaware, to Philadelphia.

Our attention has been before attracted

to this route, and we have frequently referred to it, as one of great importance to the city of New-York—and the more we reflect upon it, the more important it appears to us.

We shall give the Report entire in our next.

The route proposed is from Elizabethtown in New Jersey to Somerville, thence to Clinton, thence to Phillipsburg, opposite Easton, thence to Baltimore, thence crossing the Delaware to the Water Gap, thence to Pittston on the Susquehanna, and thence by such routes as will be deemed most advantageous to join the N. York and Erie Railroad.

Acts of incorporation exist for these respective routes granted by Pennsylvania and New Jersey.

From Elizabethtown to Somerville, the curves for a railroad are few and of large radii—the maximum slope only 5 feet in a mile—distance 22 miles—short branches may be made from this to Rahway, Bridgetown, New Brunswick and Perth Amboy.

The route from Somerville to Clinton, 21 miles, of easy grade, 7 feet slope per mile.

From Clinton to Belvidere, 73 miles, easy descent by water courses.

But the most important part of this report is that which touches ourselves at New York. It is affirmed that at Pittston, a choice is presented to unite with the New York and Erie Rail Road at Binghamton, by the Legget's Gap Rail Road, or at Shepherd's corner, near Tioga point, by the Susquehanna Rail Road, for both of which Pennsylvania has granted liberal charters. The distance then to Portland on Lake Erie, by the New York and Erie Rail Route is, it is said, 216 miles; making by this route only 438 miles from New York, or seventy miles nearer than by any other practical route. If the route from Pittston by the Susquehanna Rail Road to the New York line is adopted—it passes within nine miles of the bituminous coal regions of Bradford and Tioga counties, and the course of the Lycoming, which runs to the W. branch of the Susquehanna and the Towanda, which empties into the N. branch and interlock at their summit, opening an easy route with the Elmira and Williamsport Rail Road. Thus the bituminous coal of Bradford, and Tioga counties, and the anthracite of the valley of Lackawannock, reach New York and the Northern and Eastern portions of New Jersey—one hundred miles nearer by this than by any other route. It is estimated that 200,000 tons of bread stuffs, lumber, &c. annually descend the Susquehanna, from within 20 miles of the N. York line. Two millions of merchandise are annually consumed by the counties in that neighborhood. The forests abound in curled maple and other choice timber. The land is rich—the water power abundant. The trade of the tributaries of the Susquehanna will thus be thrown, also by a short route, upon Philadelphia. The Delaware Water Gap protects the whole route from all competition, giving it thus a natural monopoly.

Fig. 1.

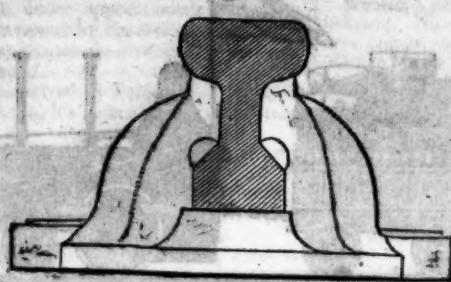


Fig. 4.

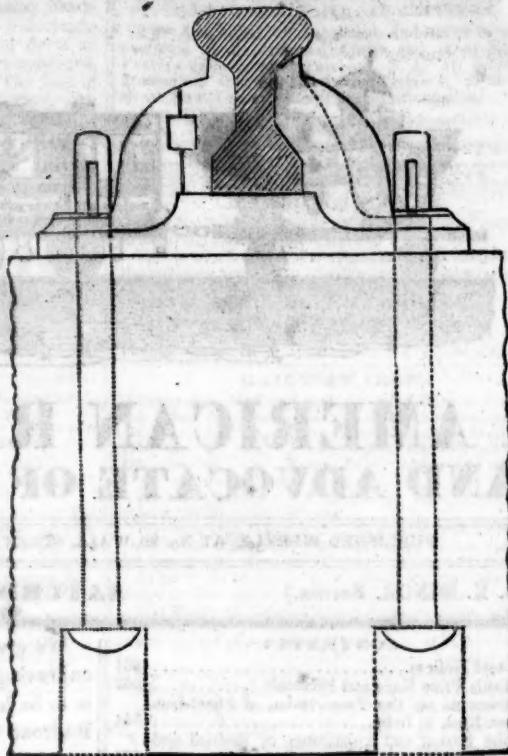


Fig. 3.

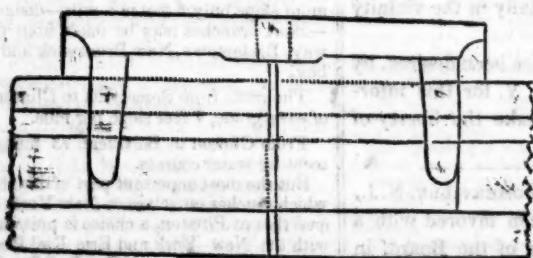
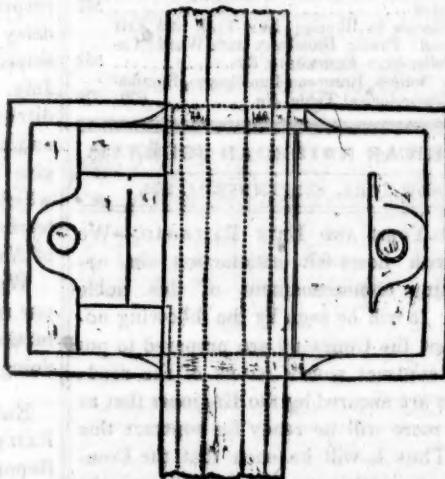


Fig. 5.



[From the London Mechanics' Magazine.]

DAGLISH'S PRIZE RAILS AND PEDESTALS.

Dear Sir,—I herewith send you drawings of my parallel rail and joint and intermediate pedestals, with the mode of fastening them to the stone blocks or sleepers, and also of my method of keying the rails into their respective pedestals; for all which I obtained the premium lately offered by the London and Birmingham Railway Directors, with the exception of the mode of fastening the pedestals to the stone blocks, which the Committee of Reference are said to have thought inferior to the lewis-pin of Mr. Swinburn, to whom the Directors accordingly awarded a third of the premium. I have also added sketches of certain modifications of my rail and pedestals, which it might be advisable to adopt under particular circumstances, and in some peculiar localities.

Fig. 1 (No. 8 of the Competition) is an end-section of the parallel rail and joint pedestal (the pedestal where two ends of different lengths of rail meet), showing also the mode of keying the rail by cotter

bolts, (No. 3 of the Competition.) Fig. 2 is a plan of the above; and fig. 3 a side-section. The weight 50 lbs. per yard. The stone blocks are from 10 to 12 inches thick, and contain from 4 to 5 cubic feet; the cotter bolts are $\frac{3}{4}$ inch round.

I have tried this form of rail against ten other forms of rail of the like weight per yard or thereabouts, not only by actually running heavy locomotive engines over them, but by means of the steelyard and lever, and have always found that it will carry more weight than any other with the least deflection. The simplicity of its construction, too, is greatly in favor of its being soundly made.

Fig. 4 is an end-section of the same kind of rail, with the intermediate pedestals; and fig. 5, a plan of the same.

The joint-pedestal is made of nearly twice the bearing of the intermediate ones, in order that the ends may be the more effectually secured.

The Secretaries of the London and Birmingham Railway state, in their letter to me announcing the award of the premium

in my favor, (with the exception aforesaid,) that the Committee of Reference did not consider that any one of the patterns or plans sent in fulfilled the conditions required by their advertisement, (that is to say, I presume, combined in one all the advantages sought for,) but that my form of rail and chair, (or pedestal,) and mode of fixing the rail to the chair, (according to the chair pattern, No. 3, and model, No. 8,) were the best as regards the two first conditions of the advertisement; while the method of fixing the chair to the stone block, shown in model No. 5, (Mr. Swinburn's,) was the best as regards the third condition; and that the Directors had, therefore, come to the unanimous resolution, that they should not be justified in giving the premium for any one individual pattern or plan, but that 70*l.* of it should be awarded to me, and 35*l.* to Mr. Swinburn.

On comparing, however, the statements in this letter with those in the pamphlet lately published by Mr. Barlow (one of the Committee of Reference,) containing an account of the experiments made by him

at Woolwich, and his Report thereon to the London and Birmingham Railway Directors, I must confess that I am quite at a loss to reconcile the two. For it appears from the latter, that Mr. Barlow not only made his experiments with my form of rail, which he pronounces to be by far the best, but recommends the mode which I proposed of fixing the pedestal to the stone block, *and not Mr. Swinburn's*.

Indeed, to all who are practically conversant with railways, it must seem as inexplicable as surprising, that the lewis-pin method should have been thought worthy of favorable mention at all, far less of being honored with a premium. Were such a mode of fastening adopted, (as it, most assuredly, never will,) it would not be long before the concussions from the passage of heavy locomotive engines, at great velocities, would infallibly split the stone to the depth of the lewis.

The mode of fastening practised by me, and approved of by Mr. Barlow, (though, strange to say, not treated with like favor by the Committee of Judges, of whom Mr. Barlow was one,) consists, as will be partly seen from inspection of the figures, in inserting plain cotter bolts through the stone, and countersinking the hole up from the bottom for the space of an inch and a half or two inches, so as to permit the point of the bolt to drop below the base of the pedestal. I first tried screw-bolts, but was obliged to abandon them in consequence of the nuts getting through corrosion, so fast to the bolts as to twist the bolt-ends off before they would unscrew. Fifteen years' experience has now satisfied me that the plain cotter bolt is the only one that will answer.

Mr. Barlow speaks of this method of fastening as if it were the suggestion of Mr. Vignoles. But how he should have fallen into such a mistake, I cannot comprehend; for it was not only fully shown in the models I sent in to the London and Birmingham Railway Directors, but the advantages of it were particularly dwelt upon in the letter which accompanied them. To place this beyond all doubt, I will here repeat those passages of my letter which relate to this point:

"The pedestal for the joint I would particularly recommend to be fastened to the sleeper with cotter bolts; I would also prefer fastening all the intermediate ones in like manner, though they would answer to be well nailed in the usual way, but much better with cotter bolts, as you then derive the greatest effect from the parallel rail, by keeping every pedestal firmly down. If only nailed, this may prevent the intermediate pedestals becoming fulcrums, in which case the fibres of the upper surface of the rail are not called into tension in the same ratio with those on the under side of the rail, immediately between the pedestals, while the locomotive or any other heavy carriages are passing along the line."

Again:

"I prefer the mode of fastening the pedestals with cotter bolts as by far the most effectual for general use; if even they have to be fastened with smaller bolts, (say $\frac{1}{8}$ ths diameter,) more especially when they can be thus secured at as cheap a rate as if fastened by nails. The holes for the small bolts can be drilled through the stone sleepers for less than the large holes necessary to receive the wooden plugs; and the small bolt and cotter will only cost a trifle more than the nail and wood plug, as both the bolts and cotters can be made by a machine for that purpose."

Mr. Vignoles, though he certainly did not

suggest the use of the cotter bolt, has done me the honor to cause it to be adopted in the construction of the Dublin and Kings-town Railway, instead of the nails or spikes commonly used.

Mr. Barlow makes some very forcible observations, (which, in noticing his pamphlet, you have judiciously transferred to your pages,) on the importance of exact fitting and fastening; but to show you that all practical men have not been so indifferent to these matters as Mr. Barlow imagines, and indeed somewhat broadly insinuates, I will, with your leave, make another short extract from my letter to the London and Birmingham Railway Directors, which has an immediate bearing upon this part of the subject:

"I am quite sure a velocity of from 50 to 60 miles per hour may be obtained upon a well-constructed railway, with greater safety than one of 20 miles, upon any of the present lines yet in operation; not only from their having too tight a rail and ill-constructed pedestal, but from the mode of fixing them, *especially at the joints*, which is the great cause of so much deflection and sudden action, both vertically and horizontally—so that it is not in the power of man to make a locomotive engine to stand the action they are subject to long together.

"I have frequently stated to Companies, that every public railway ought to be laid down as accurate and as firm as it is possible for hands to do them; and, when that is done, to put a steam engine upon them to plane the surface, the same as we do our slide-rails."

I must also use the freedom to observe that, correct as Mr. Barlow's views are, of the importance of executing all railways in the best possible style of workmanship, he shows, in nearly all that regards the details, great want of practical knowledge. Speaking of keying the rails to the pedestals, he says, that "if the rails and chairs must not be permanently fixed to each other by direct means, it ought not to be attempted by indirect means, viz. by cotter keys or wedges, for either these will hold the rail to the chair, or they will not; if they do hold fast, they produce all the mischief which permanent fixing would occasion; and if they draw, then they do no good, although they may still do mischief." Now, if the Professor ever had an opportunity of carefully watching for a summer's day the passing of heavy steam carriages and long trains of other heavy carriages over a railway, he would never have ventured such a statement. He would have witnessed, that it is scarcely in the power of man to fasten the rails permanently to the pedestals. Aware of the impracticability of doing so, I do not allow the D key proposed by me, (see fig. 1,) when used to key the rail to the joint-pedestal, to be driven with more than a single-hand hammer; and I also stop it at its place when driven, the key being here merely intended to act as a steadiment to the rail. For before a locomotive engine or heavy train has passed twice over the rails, the whole of the keys give or yield of necessity in such a manner as to allow the rails to expand or contract more than double what they really do, or are subject to, from the differences of temperature to which they are exposed. With respect, however, to the intermediate pedestals of the five-yard rails, the more soundly they are keyed to the rail the better, so as not to injure the pedestal by over-driving the key, as there is more latitude in the holes through the base of the pedestals where the bolts pass, than would compensate for treble the expansion and contrac-

tion the rails are subject to. Besides, each of the holes drilled through the stone blocks upon which the pedestals rest is drilled $\frac{1}{8}$ th of an inch larger than the diameter of the bolts, and the pedestals can never be so hard cottered down to the surface of the stone but what they will give a little. All difficulties on this head I got completely over several years back, in both wrought and cast-iron railways, which have been laid under my direction. I could refer Mr. Barlow to several miles of railway which have been worked for years, and remain at present perfectly firm, without the least distortion, either vertically or horizontally.

Again: notwithstanding Mr. Barlow has actually proved by experiment that the parallel rail is superior to the parabolic, or fish-bellied rail, and has taken some pains to show the neutral axis, which has little or nothing to do with the best form of rail; yet he has forgotten to point out one of the most essential advantages which the parallel rail has over the parabolic rail, as I have frequently proved by the steelyard lever. I have found that by holding the ends of the rails firmly down, at the joint-pedestal especially, the parallel rail of fifty per yard will carry upwards of a ton more, with the same deflection, than they will do if the ends are allowed to rise, which they will of course do if the end-pedestals are merely nailed down in the bad and ineffectual manner hitherto usual, namely, by common rails or spikes. When the rails are kept firmly down by proper means, the intermediate pedestals become so many fulcrums, and the tension of the fibres of the upper parts of the rail is called into play, as will be readily understood from inspection of the following diagram, in which AA represent the points of tension, and BB the points of deflection.



I perceive further from Mr. Barlow's experiments, that he considers the best rail for strength ought to be from $4\frac{1}{2}$ to $4\frac{3}{4}$ inches deep, from the upper to the lower surface. I am quite confident, however, that it will be found that the best form of wrought iron rail ought not to exceed $3\frac{3}{4}$ inches deep, or 4 inches at most; for by making the rail higher, not only will the pedestal be much weakened, but there will be no possibility of holding the pedestals firm on their base, by cotter bolts or any thing else, more particularly at the shunts and curvatures of the line of railway, and even the stone blocks will be continually shaken. It is well known in practice, that the lower any rail and pedestal can be kept, the less is the destruction in them, and the less the action on the foundation upon which the stone blocks are placed. It is also equally well known, that a sufficient wrought iron rail can be made of the depth I have stated, (namely $3\frac{3}{4}$ or 4 inches,) to resist the action of a locomotive of 12 to 14 tons weight, at a speed of 40 or 50 miles per hour, (or even more if necessary,) if it is properly laid and adjusted.

I find that the different railway companies are now going to have their rails manufactured to weigh as much as 60 lbs. per single yard. The additional 10 lbs. per yard ought, in my humble judgment, to be employed partly to strengthen the lower edge, and make it to rest more firmly on its basis, and partly to increase the width of the upper surface; both in the manner shown in fig. 6, which is a sectional view of what I consider the best form of a rail of this weight.

My object in these modifications is to increase the adhesion of the locomotive engines, as well as to give a little more bearing on the peripheries of their wheels, in order to make them last longer.

I understand the Directors of the Birmingham and Liverpool Railway (the Grand Junction), have recently given an order for one or two thousand tons of parallel rails, the upper and lower edges of which are both alike; and that they have been induced to give this form of rail a trial by certain persons in their employment, who lay claim to it as an *invention of their own*, and put it off (naturally enough) as superior to all others. Now, the fact is, that twelvemonths ago, I gave one of their engineers a set of drawings, of rails and pedestals, of a variety of forms, and this was one of them. And in my letter to the Directors of the London and Birmingham Railway, before quoted from, I also expressly made mention of this form of rail, as one that *might* be employed, but pointed out, at the same time, certain objections to its use, which restrained me from proposing it for adoption. My words were these:

"I have hesitated with myself, whether or not to make a pattern with the upper and lower edges exactly alike, so as to be able to use either side, in case the former should prove a little unsound in any part, which has hitherto been frequently the case, especially at the ends, as I am fully aware that the more metallic material that can be brought to the lower side adds considerable strength to the rails; but as you seem disposed not to exceed 50 lbs. per single yard, a little would be lost in the depth and height of the rail. Allow me to assure you, that no public railway company will ever regret having sufficient strength in the rails at the beginning, and that they ought not, by any means, to confine themselves to a pound or two in the yard, in order to make the work as complete and substantial as possible at the commencement. But, as it is, after mature consideration, and taking every thing into question, I prefer the models I have furnished, (Nos. 8 and 3,) as the keys will be more effectual."

Fig. 8 is a section of the form of rail that I recommended, and would still recommend, for adoption, where it is desired to construct it, so that it may be inverted if necessary. It is what I call a "fancy rail," but ought to weigh at least 55 lbs. per yard.

Where a railway is intended for locomotive engines of only from eight to ten tons weight, a rail of the form represented in fig. 9, and weighing only 45 lbs. per yard, will be found to answer sufficiently well.

For America, where they have great difficulty in obtaining stone blocks, and are in the custom of fixing their rails on wooden sleepers of lengths varying from 30 to 50 feet, secured by cross sleepers, the best form of rail is that shown in fig. 7. I have been informed by American engineers that they can get plenty of a hard durable timber, very suitable for the purpose, for little more than the expense of cutting it down in the forests, and sending it to the saw mills to be cut into scantlings fit for immediate use; and that a railway bed of this description will last for nearly twenty years. Sometimes they lay their rails on cross sleepers only, dispensing with the side pieces. Several orders for rails of the form above referred to are now executing under my inspection for railway companies in America.

But to return to our own country: Mr. Barlow, I observe, says, "For the intermediate chairs, I think a slight modification of Mr. Stephenson's would best answer the purpose, that is, I would support the rail in

contains a suggestion for the further security of the rails, that seems to me not undeserving of general attention:

"I should also advise, that each joint-pedestal should be coupled with the opposite one by an extended round bar of three-fourths or seven-eighths diameter, with a washer welded on each end, so as to drop on the ends of the copper bolts in order to keep the railway in true gauge. This I have found of great service even on common railways."

Trusting to the interest and importance of the subject for a justification of the length to which this letter has extended,

I remain, dear Sir, yours, respectfully,

ROBERT DAGLISH.

Orrell Cottage, near Wigan, May 26, 1835.

[From the London Repository of Patent Inventions, &c.]

EXPERIMENTS ON THE PRESERVATION OF SHEET-IRON FROM RUST, IN INDIA. BY JAMES PRINSEP, ESQ.—The proposed extensive employment of iron steam-boats, for the navigation of the Ganges, rendered it a desideratum to ascertain what varnish or composition would best preserve the exterior surface of such vessels from the rapid corrosion to which iron is so peculiarly subject in a hot climate. A series of experiments was undertaken with this view by myself, at the requisition of government; and it may perhaps be useful to record the principal results in a journal of science.

Two sets of six wrought-iron plates, each measuring 3 feet by 2 feet, were fixed to two iron triangles, the plates being prevented by studs from coming into contact with each other. The same varnishes were applied to both sets, one being intended for entire submersion under water, the other to be only half immersed, in order to [that it might] feel the united influence of air and water.

The following were the coatings applied:

1. Common coal-tar laid on hot, and the plate heated.
2. *Thetsee* varnish of Ava, one coat. This took a very considerable time (two months) to dry, kept first in a cool room, and afterwards in a room heated by furnaces.*

3. Native *Dhuna*, applied to the iron hot, in a thick uneven coat.

4. Best white-lead paint, three coats; allowed to dry and harden for nearly three months.

5. Coachmakers' varnish, two coats; dried rapidly.

6. Spirit varnish, several coats; warmed.

7. White wax, melted on the surface.

8. White wash, of pure lime water.

9. The surface of the iron plate cleaned and guarded with an edging of zinc, soldered on.

10. The natural surface of the rolled iron sheets, covered with its usual hardened grey oxide.

Many of the foregoing were employed from curiosity only, especially No. 6, the

* Major Burney states, that three or four days are sufficient for the varnish to dry when laid on wood (Journal, vol. i. p. 172). I had not a damp vault in which to expose the plate as recommended by that officer, and that may partly account for the delay in drying; but all varnish and paint takes longer to dry on metal than on wood, from its non-absorbent nature.

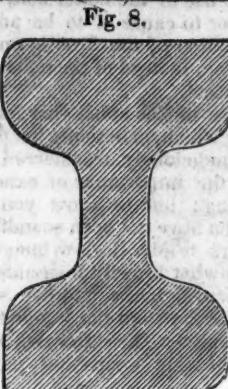
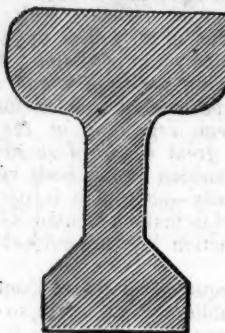


Fig. 8.



the chair simply by the ends of two plain-ended pins, so as to give it the requisite steadiness with as little friction as possible. Of course I would have these pins pointing horizontally, or upwards, instead of downwards, as they do in the chair in the question." The chair here alluded to is, I presume, that for which Mr. Stephenson, junior, some time ago took out a *patent*, instead of submitting it, as might have been expected, to the test of the open competition, which his employers, the London and Birmingham Railway Directors, thought best for the interests of the public. As I have not myself seen any drawing or description of this chair, I am not prepared to offer any decided opinion upon it; but if its excellence consists (as Mr. B.'s language seems to indicate,) in supporting the rail "simply by the ends of two plain-ended pins," it must be one of the most inefficient of all the contrivances ever designed for the purpose. Mr. B. might as well make use of two of his fingers, as two such "plain-ended pins;" for after a locomotive engine had passed once or twice over them, they would be (not crushed, perhaps,) but rendered of no manner of use whatever.

Mr. Barlow says in a note to the passage last quoted, "It may be worth consideration, whether if this mode of fixing were adopted, it would not be practicable and advantageous to introduce pieces of felt, or other substance, within the seat of the chair, which would greatly subdue the jars that take place between metal and metal."

A crowning instance this, of the little practical acquaintance Mr. Barlow has with the subject about which he has written so learnedly. I have said that he might as well make use of two of his fingers as two of Mr. Stephenson, Jun.'s pins (if Mr. Stephenson's they be); and so I now take leave to tell him that as far as any benefit is to be derived from the insertion of felt within the chair, he might as well insert a piece of his thumbskin.

I will only, Mr. Editor, trespass further on your valuable space, to make another brief extract from my letter to the London and Birmingham Railway Directors, which

spirit varnish, which had, on many occasions, proved quite ineffectual in preserving the surface of polished iron and steel from rust in the atmosphere of Calcutta.

The two frames were suspended as above described, one under water, the other half immersed, from one of the unused dredging boats, near the Chitpur lock gates, in the circular canal, where they were left undisturbed for three months, during a period of the year when the water of the canal was only slightly salt.

They were then taken up for examination, and presented the following appearances.

Plates under water.

1. Tar—Perfectly preserved and free from rust.

2. Thetsee—Perfectly uninjured in appearance.

3. Dhuma—White and pulverulent; soft and easily rubbed off while wet: rust here and there.

4. Paint—Almost wholly disappeared, and blotches of rust on the surface.

5. Copal varnish—Whitened, pulverulent, and soft; but not much oxidized.

6. Spirit varnish—Whitened and very rusty.

7. Wax—No trace of wax left, and very rusty.

8. Lime—Flaky, peeled off, and very much corroded.

9. Zinc—The clean iron excessively corroded and bad: the zinc also oxidized.

10. None—The natural surface was a little whitened, and pretty well preserved.

The superior preservative power of coal-tar to all the substances tried, with the exception perhaps of the thetsee, was evident; the Burmese varnish labored under the disadvantage of being a single coat, otherwise it would, doubtless, from its hardness, its firm adherence, and its inalterability by water, prove fully equal as a lacquer to the coal-tar: the latter has, on the other hand, the advantage of drying and hardening as soon as laid on.

The change effected on the resinous varnishes is produced by an actual chemical combination with the water; the soft pulverulent matter is analogous to the white powder obtained by the addition of water to an alcoholic, or to an acid solution of resin.

The failure of the zinc guard, which was expected to act as an electro-positive protector to the iron, may, I think, be attributed to its being adulterated with lead, which being negative with respect to iron, would cause, as was actually the case, a more rapid oxidation of the latter metal: (the impurity of the zinc was afterwards fully proved.)

The wax and the white paint had entirely disappeared from the surface of the metal under water, before the plates were taken up; it is impossible, therefore, to say in what way their removal was effected.

The bituminous (coal-tar) coating was finally adopted, and it has been successfully applied to the iron steamer, the Lord William Bentinck, lately launched under Captain Johnston's superintendence.—[Journal of the Asiatic Society of Bengal.]

CHEMICAL EXAMINATION OF THE PETROLEUM OF RANGOON.—By ROBT. CHRISTISON, M. D., F. R. S. E., Professor of Materia Medica in the University of Edinburgh, &c.—At the close of the preceding session, the Council of the Society did me the honor of entrusting me with the chemical examination of several articles sent not long ago to the Society by Mr. Swinton, Secretary to the Government at Calcutta. The articles in question are, 1, Specimens of the *black varnish* used in different parts of Hindostan and the Burmese territories, with specimens of the juices of which these varnishes are said to be compounded. 2, Specimens of *naphtha* from Persia, and of *petroleum* from Rangoon. 3, Specimens of *wood-oil*, a variety of fluid turpentine. 4, Specimens of crude *caoutchouc*, and of solutions of it in *wood-oil*.

The only one of these articles which has hitherto yielded results of such interest as to induce me to lay them before the Society, is the petroleum of Rangoon, which appears to contain a compound inflammable principle hitherto unknown.

The petroleum of Rangoon, termed by Mr. Swinton *earth-oil*, and more generally in the East, *ground-oil*, is probably the same with what may be procured in various parts of our eastern dominions, by merely digging a few feet into the soil. In the vicinity of Rangoon it may be obtained in immense quantity for the mere trouble of digging it. It is used in Hindostan as pitch for all manner of wood-work; and is likewise a favorite external remedy for rheumatism, being employed for that purpose in the way of friction.

I am not aware that either this, or any of the European petroleums, has been subjected to careful analysis; and I should suppose no such analysis has been made, because no chemist, even with a careless examination, could have failed to observe that it contains a peculiar principle, the discovery of which would have given the analysis publicity.

The petroleum of Rangoon, at ordinary temperatures in this country, is a soft solid, of the consistence of lard. Its specific gravity, at the temperature of 60° Fahr., is 880, water being 1000. At the temperature of 86°, it is of the consistence of thin paste, and at 90° it melts completely, and forms a sluggish liquid, which acquires more fluidity as the temperature rises. Hence in the East, during the hot season, when it is dug for, it must be in the fluid state, and consequently entitled to its vulgar name of *ground-oil*. It has a powerful naphthous odor, different from that of most other petroleums.

It is impossible to analyze this petroleum by means of the ordinary chemical solvents. Most of these solvents, such as

the acids and alkalies, have little or no action on it, while alcohol, which acts feebly, and ether and the volatile oils, which act energetically, dissolve all its principles indiscriminately. The only practicable method of analysis, therefore, is the process by distillation.

When six ounces of petroleum were distilled, there was first procured, at a low heat, an ounce of nearly colorless naphtha; then another ounce of straw-yellow naphtha; then, at a higher heat, about another ounce, much more yellow, yet still fluid at 60° Fahr.; next, a considerable quantity of a yellowish liquid, which concreted at 60° into a loose mass, composed of numerous crystalline needles and plates, in a yellow naphthous fluid; and, as the distillation went on, this matter became more and more solid, but even towards the end was not firmer in consistency than lard. The residual matter in the retort, when the heat had been raised to full redness, was a spongy charcoal.

The naphtha, when rectified by a second distillation over a lamp, and then by a third distillation from the vapor-bath, is limpid and colorless, like sulphuric ether, and its density as 779. From the trials I have made, I consider that the Rangoon petroleum, when distilled on a large scale, will yield nearly a third of its volume of this colorless naphtha.

I need scarcely observe, that in eastern countries, where the fresh juice of the caoutchouc tree cannot be procured, the naphtha from the Rangoon petroleum may prove a useful article. Like other kinds of naphtha it freely dissolves, or rather softens, caoutchouc; which, after the evaporation of the solvent, is recovered with its original properties. When it is to be used for this purpose, however, it must be carefully separated by distillation from the crystalline matter I am presently to describe, which rises as the distillation advances, and gives the naphtha a yellow color. For if any material proportion of this impurity be present, the caoutchouc solution dries very slowly, and long retains a greasy surface.

The yellowish, concrete, crystalline matter, like the petroleum itself, is not acted on by the caustic alkalies, or by the strong acids. Alcohol dissolves it very sparingly; ether and the essential oils, freely and entirely. None of these solvents, therefore, is of any use for separating the crystalline matter from the mass. But I have succeeded in procuring it in a state of purity by the following process:

The mass being cooled down to about 40° Fahr. it was spread out on the filtering paper, and then subjected to strong pressure between many folds of common blotting paper. In this manner, an oily-like matter was taken up by the paper, and a pale yellowish white crystalline substance was left, which was subsequently deprived of its remaining color by repeated solution in boiling ether and recrystallization. Ether dissolved it largely, forming a pale yellow solution, which, on being cooled by immersing the vessel in very cold water, became a soft mass of interwoven crystals. This mass was then

taken out, spread quickly on filtering paper, and immediately subjected to strong pressure between folds of blotting paper. The yellow coloring matter, which all remained in solution in the ether after it cooled, was thus, in a great measure, imbibed by the paper; and the crystalline matter was procured in a state of purity by repeating this process twice.

On first procuring this crystalline substance, I considered it as the same with the naphthaline procured not long ago from coal-tar by Mr. Kidd, as related in his paper in the *Philosophical Transactions* for 1821. This opinion I was led to form from the appearance of the crystals, the nature of the substance which yields them, and the process of distillation by which they were procured.

On a careful examination, however, I find that the crystalline principle of petroleum differs materially from that of coal-tar, as well as from every other known body; and I shall therefore beg leave to denominate it *Petroline*, according to the analogy suggested by the name of Mr. Kidd's crystalline principle.

As procured by the process described above, petroline forms foliaceous masses of small crystals of snowy whiteness, and bright pearly lustre. It is somewhat unctuous, and has a naphthous odor, which becomes very faint on exposure for some time to the air, and is removed altogether by boiling in alcohol. It fuses at 135° into a transparent, limpid, colorless fluid; but softens ten degrees lower. From a state of fusion it concretes on cooling into a translucent brittle mass, like wax, the density of which is 909 at 60° Fahr. At a temperature intermediate between the boiling point of water and a low red heat, the fluid boils, and distillation takes place. The greater part of the petroline condenses in the form of a fluid, which becomes, on cooling, a translucent waxy mass, with its original properties. But, owing to the elevated temperature required for its distillation, a part is decomposed, a little charcoal is left behind, and a small quantity of inflammable gas passes over with the undecomposed sublimate. When heated in the open air, it catches fire, and burns with a dense white flame and much black smoke.

Petroline is insoluble in water, cold or boiling. Boiling alcohol takes up a small quantity, not more than a 450th of its weight, and, on cooling, deposits the greater part in minute shining crystals. Boiling ether, its proper solvent, easily takes up a fifth of its weight, which, on cooling, is in a great measure separated in a congeries of micaceous crystals, so abundant as apparently to convert the ether into a solid mass. Oil of turpentine also dissolves it in large quantity, and so does naphtha.

Caustic potass and caustic ammonia in solution have no visible effect on this substance. When boiled with it, it simply fuses, rises to the surface, and is there found, on cooling, with its usual properties. Concentrated muriatic, nitric, and sulphuric acids, are equally without action, even when aided by the heat neces-

sary to boil each. It simply melts and rises to the surface, and, except that it becomes slightly yellow with nitric, and slightly brown with sulphuric acid, no change of property is perceptible. It has no action with acetic or oxalic acid.

With iodine, aided by a gentle heat, it quickly unites, forming a violet-colored fluid, which, on cooling, becomes a dirty greenish-brown solid, very soluble, like each of its elements, in sulphuric ether.

I have not made any inquiry into the other chemical relations of petroline, my object at present being merely to establish its claims to be considered a new principle, distinct from any other hitherto known. In its properties it resembles naphthaline more than any other substance; but, at the same time, it differs from that body in very many respects. Naphthaline volatilizes at common atmospherical temperatures; does not fuse under 180° Fahr.; and, when heated a little above 400°, boils and sublimes in fine micaceous crystals. It is heavier than water. It forms a rose-colored solution with acetic or oxalic acid; and with sulphuric acid it unites to form a peculiar acid, termed the sulpho-naphthalic, which, like other acids, neutralizes bases, and forms salts with them. A single glance will satisfy every one how completely this account of the properties of naphthaline differs from the description given above of the properties of petroline.

It remains for me to determine its elementary composition. This I have not hitherto found leisure to accomplish; but I am engaged in the requisite experiments at the present moment, and will soon make them known to the society. The experiments hitherto made merely enable me to say, that it contains a very large proportion of carbon.

Appendix, December, 1834.—A few months after the preceding paper was read before the Royal Society, the author observed in *Buchner's Repertorium*, an account of the discovery in 1830, by Dr. Reichenbach, of a crystalline principle in tar, to which that chemist gave the name of paraffine.* As the properties of paraffine seemed from that account to be obviously identical with those of the petroline of the Rangoon petroleum, and as Dr. Reichenbach had ascertained its properties and composition fully, any farther investigation of the crystalline matter of petroleum appeared unnecessary. The original paper is now published, partly because allusions have been made to it in chemical works, and partly to serve as an introduction to the ulterior inquiry of Dr. Gregory on the same subject.

The author, soon after laying this paper before the Royal Society, examined by the same process the petroleum of St. Catherine's, near Edinburgh, of Rochdale, in Derbyshire, and of the island of Trinidad; but was unable to detect a similar crystalline principle in any of them. [Transactions of the Royal Society of Edinburgh, Vol. xii., Part i., p. 118-123.

* A notice of Dr. Reichenbach's researches on Paraffine will be found in the *Repertory*, third series, vol. xv., p. 34, in the number for January, 1833.

ON THE FUSION AND APPEARANCE OF REFINED AND UNREFINED COPPER. By DAVID MUSHET, Esq.—The following are "a few extracts from experiments made some years ago, with a view to ascertain what effect would be produced upon the strength and malleability of copper, by retaining, to a certain extent, the alloy (chiefly tin), which is found in rough copper, and which it is the purpose of the copper refinery to discharge. In the first place, I obtained a quantity of shotted rough copper, made from the furnace in which the copper, though alloyed with other matters, first appears in its metallic form. These shots were light and flaky, hard when struck, but at the same time partially ductile. A quantity of pure shotted copper, made from the refinery, and having the form of flattened spheroids, and much denser than the other, was procured at the same time for the purpose of these experiments.

Exp. No. 1. A quantity of rough copper was fused in a black-lead crucible with nearly an equal bulk of charcoal, and poured into an open iron mould. The bar or ingot thus made was three-fourths of an inch thick, and when cold and broken, was found to have crystallized in converging striae perpendicular to the upper and lower surfaces, and declining towards the outer edges of the bar. The grain was of a pale color inclining to gray, indicating the presence of tin.

Exp. No. 2. Three bars procured in this way were melted together in a black-lead crucible, without charcoal, and poured into a mould just at the moment when the melted copper put on a creamy appearance. When cold, the surface of the ingot thus obtained was less coppery-metallic than the surface of the ingot in the first experiment, where charcoal was used; from which it may be inferred that, owing to the absence of charcoal, a certain degree of refinement had taken place. The fracture possessed more of the red grain of good copper; the striae were less distinct and less crystalline; and the surface, instead of being convex, as in the first experiment, was concave.

Exp. No. 3. Some of the pure shotted copper was fused in a black-lead crucible with an equal bulk of charcoal, and the resulting ingot presented a more clean and perfect mass of copper than the ingots obtained in Experiments No. 1 and No. 2. The fracture presented a series of brilliant striae arranged from surface to surface, breaking off easily in the direction of the perpendicular fibre, a structure which seems wholly incompatible with extension or malleability.

Exp. No. 4. Some of the same pure copper melted similarly, but not poured into the mould until it had nearly lost its fluidity, formed an ingot less striated or crystallized than any of the former, with more of that minute deep orange-colored grain which is peculiar to pure and malleable copper. From the results of this experiment, and of No. 2, it would seem that when copper is poured into the mould

at as low a temperature as is consistent with perfect fluidity, the fracture is less crystallized, and the color approximates to that ruby grain which indicates the malleable state of copper.

Four bars, one from each of the foregoing experiments, were imbedded in burnt lime, shut up from the access of air, and exposed in crucibles to the same temperature. The pure copper bars (Nos. 3 and 4) were on the surface considerably oxidized, but those made from the rough copper (Nos. 1 and 2) were entirely free from oxide; and from this it may be inferred that the alloy (principally tin) which still remained in the copper, prevented waste or oxidation. The bar from Experiment No. 1 was not cut, but that from Experiment No. 2 retained about the same quantity of grained striae as before the cementation; though, compared with a fracture of the same copper that had not been cemented, the grain was redder, the color more brilliant, and the metal more ductile. The bar from Experiment No. 3 was covered with a thin coating of crystallized oxide exceedingly soft; the striae were more enlarged and adhesive, so that the copper, in cutting, tore out in flakes, which separately were soft and ductile. The bar from No. 4, when examined and compared with an uncemented one, was more open in the grain, redder, and more brilliant; but the quantity of depth of grain was no wise altered, although the metal cut softer, and was covered with a thin crust of shining oxide. From these details it may be presumed that cementation opens the grain, renders the bar less dense, but does not change the peculiar form of the arrangement. In each case, the copper after cementation was softer, a change which seems favorable to rolling cold. The impure or rough copper appears to be alloyed with another metal (no doubt tin,) which prevents that oxidation which pure copper in the same circumstances would undergo.

Besides the above, several bars were made from the rough copper by a slower fusion, and with a longer exposure to the charcoal, and it was observable, that the longer the exposure, and the slower the fusion, the more yellow and refined was the copper in the bar.

Some of the bars produced in the course of these experiments were attempted to be rolled; but the success was various. Of those made from the pure copper, some rolled better and others worse than any made from the rough copper; one or two bars of the latter were equally malleable with the former; but none rolled well either hot or cold. In those bars in which the striated arrangement was most perfect, the capacity for rolling was least, and those in which the minute granular fracture prevailed, generally rolled the best. It certainly does appear that this tendency to crystallize, so destructive to malleability, is peculiar to English copper made from the crucible. There are occasions, no doubt, when, the proper temperature being hit upon, the bar would roll; but these occasions are so

rare and uncertain, that English copper made in this manner could not be relied upon in the manipulations connected with manufactures. There is no question that the arts in this country suffer from the peculiarity of English copper. For, in consequence of it the malleabilization of that metal is necessarily confined to the original process of refining practised on the great scale by the copper smelters. It is very different with Swedish and Russian copper, which I have seen melted in considerable quantities in large crucibles, cast into cakes or thick sheets, and afterwards rolled into boiler-plate and thin sheet-copper. This subject requires and deserves a scrutinous examination, with a view to discover the cause of the uniform tendency of English copper to crystallize; and that cause may, perhaps, be found in the process employed in this country for the smelting of copper ores, a process which, however economical and well calculated to overcome quantity, has never yet produced pure copper.—[London and Edinburgh Philosophical Magazine, May, 1835.]

[From the Journal of the Franklin Institute.]
Abstract of the Specification of a Patent for a mode of manufacturing Wrought Nails, Tacks, or Spikes, by first preparing the material, rod, or pieces, from which they are to be made, in such a manner as greatly to facilitate the process of making them, and then operating upon the pieces so prepared by means of a machine particularly adapted to that purpose. Granted to WILLIAM C. GRIMES, York, York county, Pennsylvania, December 17th, 1834.

The metal is first to be rolled or slit into rods, but not of the exact size and form of the body of the nail to be made, but they are to be broader one way, and thinner the other, the rods being usually about twice as broad as they are thick; the width and thickness of the rod, or piece, however, being such that, when it is staved, swaged, or compressed upon its sides, or edges, enough to bring it into a square form, it shall then be of the requisite thickness for the body of the nail, tack, or spike. The rod is to be cut off into the proper lengths for the nails, tacks, or spikes; they are to be cut square off at one end, the other being cut very obliquely across the rod, thus giving the requisite taper for forming the point to the nail, &c., which taper will be greater, or less, according to the obliquity of the cut across the rod. The nails, tacks, or spikes, so prepared, may be finished by various methods, as by forging, swaging, or compression; and the machinery to operate upon either of these principles, to effect the same end, is susceptible of an almost endless variety of modifications.

The machines that I have adopted for the purpose are made to operate upon the principles of swaging and compression, and are constructed as follows. The prepared piece is let or dropped into the upper end of an angular trough, or gutter, which stands inclined from a

vertical line about thirty degrees, (more or less.) The trough consists of two flat sides, joined at right angles, the angular point being downwards, so that, if the trough was placed in a horizontal position, its sides would rise at an angle of forty-five degrees from the horizon; the piece that forms this trough, or gutter, is the ridge, or rather one corner, of a triangular frame. Swages, or hammers, strike or act upon different sides of the nail as it descends along this trough, or gutter; these swages are placed in pairs, each pair striking upon the nail within the trough alternately, and consequently upon its different sides; their helves, at their outward ends, are jointed to the two lower angles of the frame, and in such position that they operate at right angles with each other.

The piece for the nail, &c., when dropped into the gutter, slides down to a moveable piece, or stop, that rises through the bottom of the trough, which arrests it for a moment, or until both swages have operated, when this stop recedes, and the piece instantly slides down until it is arrested by a similar stop, and is again struck by two other swages, and so on through any required number; three pair will, I apprehend, be sufficient in all cases. The last pair of swages, which are at the lower end of the trough, or gutter, fall upon, and grip the nail, while a heavy hammer, from below, strikes upon and heads the same. The heading hammer, swages, and stops, all receive their motion from cams fixed upon a revolving shaft, running up through the triangular frame. Two or more nails may be passing down the angular trough at the same time, as the stops, after allowing a nail to pass, immediately resume their position. The swages, hammer, &c., after being raised by the cams, are forced back upon the nail by suitable springs.

I intend sometimes to form or finish the nails by pressure, which is effected in the following, or in a similar, manner. The machine, when intended to finish the nail by pressure, is to be made, generally, like the preceding machine, but the triangular frame will be much shorter, as there will be the lower pair of swages only, the inclined trough, or gutter, having a single stop. The action upon the nail, &c., is to be very similar to that before described, being alternate, and upon different sides, but it is to remain in the same place till finished. After a few reciprocating or alternating motions of the jaws, one or both of them close or press upon the nail, and hold it whilst there is a head pressed upon it. In forming some nails, the alternating motion of the jaws may be unnecessary, as they may close upon the nail at once, and form it sufficiently by this single pressure.

There should be two pairs of shears for cutting off the rod, whether it is cut hot or cold; the cutting edges of these stand at right angles, or nearly so, but both pairs may be fixed upon short arms, standing out from a strong vibrating, or

semi-revolving, shaft; one pair to cut the rod off obliquely, and the other pair to cut it square. The two troughs, spouts, or gutters, into which the nails fall from the respective shears, may both lead to the same point, and terminate in one groove, or gutter, before it reaches the machine below.

I intend sometimes to cut the pieces for the nail from plates, instead of from rods. The plate should be of sound material, and rolled much broader than other nail plates. These plates are to be cut off transversely into pieces about two-thirds the length of two nails; from the sides or edges of these plates, the pieces for the nails are to be cut. The plate is to be held and turned over at each cut, in the manner followed in making cut nails, the length of nail, however, being only about two-thirds of the width of the plate; the shears being bent into such form as to run off to the edge of the plate; the piece thus cut off is brought to an acute point, being tapered less than half its length; the taper, or points, of the nails overlapping each other in the plate. This plate should be at a red heat when the nails are cut from it, if they are to pass directly into the machine; or they may be cut off cold, and afterwards heated and fed to the machine, as before specified.

What I claim as new, and as my invention, in the before described mode of preparing the pieces, or material, for wrought nails, and in the machine for finishing them, and for which I ask letters patent, is—1st, The cutting the rod obliquely, in the way described, to form in part, or wholly, the taper of the nail, tack, or spike, whereby mere pressure, or swaging, will suffice to finish the nail, &c.: the rods being broader one way, and thinner the other, than the body of the intended nail.

2d, I claim the manner of preparing the pieces for wrought nails, tacks, &c., to be finished in my machine, by cutting them out of plates of metal, as herein before shown. I do not claim the cutting with the grain of the metal generally, that having been previously done, but confine myself to the cutting into the form, and for the purpose, described. I claim the forming or finishing nails, tacks, or spikes, or other metallic articles, by swaging in, or as they descend an inclined trough, or gutter, after the manner, or upon the principle, herein before specified.

3d, I claim the finishing of nails, or similar articles, after being prepared as herein before shown, by alternate or simultaneous pressure, after the manner, or upon the principle, before specified.

WILLIAM C. GRIMES.

To the Editors of the *Mercantile & Advocate*.

Gentlemen: In your paper of Thursday, I observe you give "Indiana" credit for the following contemplated works:

1st. A steam-boat canal to unite the waters of the Lake with the Illinois River.

2d. A canal from Beardstown to the Sangamon River.

3d. A Railroad from Chicago to Galena, &c. The above, and I believe all the improvements

you mentioned, are in Illinois exclusively, and with the exception perhaps of a small portion of the Chicago and Vincennes Railroad, are in contemplation. The Chicago and Illinois River Canal will probably be commenced in the spring, and would have been this spring had the Legislature given the Governor sufficient power to pledge the credit of the State for a loan to commence with. Your obedient servant,

ILLINOIS.

NEW YORK AND ERIE RAILROAD.—The people of the West took with earnest interest at the progress of this work,—not that it is of any consequence to us whether New York or Pennsylvania, which are engaged in honorable rivalry, shall secure our trade,—for the West will avail itself of the best accommodations afforded to it,—but that this Railroad will better serve our interests than any other work projected by either of these States. New York is the best and proper market for the West to go to. We would rather be conducted to that great central mart than any other. The New York Herald states that merchants from Tennessee, Kentucky, Ohio, and other regions, who have been in the habit of buying their goods in Philadelphia, are now purchasing them in New York, and remarks: "The whole commerce of the nation is fast concentrating here. This is the great mart of commerce—and the coming season will prove it." The indications of fall trade are said to be beyond any hitherto known, and the papers speak with exultation of the influx of trade from the West. But the spring trade: let us be accommodated here. This region will soon find it more profitable to get their spring goods through other channels, than to be retarded some five weeks in the opening of their trade, by the obstructions in Buffalo harbor, which last season was not cleared until the 15th of May. We believe it to be the unanimous opinion of merchants here, that their interests are intimately connected with the completion of the New York and Erie Railroad, which would place their spring business at least one month in advance of what it now is.—[Chicago American of 29th Aug.]

We are glad to see by the number of wooden blocks piled up in the rear of the Old Bridewell, that the experiment of paving a part of Broadway with wood, on the Russian plan, is in a fair way of soon being tried. Should the attempt prove successful, it will bring about a complete revolution in the mode of paving streets, and will form an improvement of vast importance. [We understand that the part of Broadway selected for the experiment, is in front of the two squares next above Murray street. Each of the small blocks of wood is of hexagonal shape; the whole are to be fitted together and driven up tightly, by a long strip of timber near the gutter at the sides; and the interstices between the blocks to be well payed with tar or pitch.—[Gazette.]

CANAL TOLLS.—There has been received for tolls on the New-York canals from the 15th to the 31st August, the sum of \$93,544 72. Add to this sum the tolls for the first two weeks, \$67,792 81, and it makes the total receipt for the month of August, \$161,337 53. This exceeds the collections for Aug. 1834, by the sum of \$24,649 70.

There has been received for tolls on all the State canals from the opening of navigation to the close \$863,328. This exceeds the collections up to the same time in 1834, by the sum of about \$154,000. —[Argus.]

A statistical account of the steam-engines in existence in France, taken under the direction of the Administration des Mines, has been completed up to the end of 1833, when there were 947 steam-engines, presenting together a force of 14,746 horse power—a single horse power being estimated at 75 kilogrammes, or 165 lbs. avoidupoise, raised to the height of a metre, or nearly four feet to a second.—Of these engines, 759 were made in France, 144 abroad, and 44 whose manufacture has not been ascertained. This account shows that in all the years from 1827 to 1833, inclusive, the last year was that within which the greatest number of engines has been erected. These amounted to 130, of which five only were of foreign manufacture. It also shows that of the 903 engines whose manufacture has been ascertained, 334 were of low-pressure, and 569 of high-pressure. These 903 engines form the total of those which have been constructed within

the last twenty years, and it is only during the last four or five years that the immense advantages of the high-pressure engines have been fully acknowledged; and, consequently, the greater number of the 569 high-pressure engines have been formed during this last period; so that the present proportion is not as 334 to 569, but as 1 to 3 or 4. However this may be, it is proved that there are now in use in France a great many more high-pressure than low-pressure engines. On the 1st January, 1834, there were in France 95 steam-vessels, besides those in the service of Government. The engines they employ are 118 in number, of which 82 are on the low-pressure, and 36 on the high-pressure principle. But it is remarked that these vessels have been built a long time, and therefore when the low-pressure principle was most in favor. Of these 118 engines which present a force of 3,480 horse power, 34 have been ascertained to be of French construction, 59 foreign, and the remaining 35 are unknown. At present the engines constructed in France in proportion to those made abroad is not as 34 to 59, but as 126 to 6. Therefore the engines on board the steam-vessels which are of foreign manufacture are of an old date, and of a period when high-pressure engines were but little used.

LIVERPOOL, WEDNESDAY.—THREE WAGONS DESTROYED BY FIRE ON THE RAILWAY.—One of the engines of the Liverpool and Manchester Railway left the latter place this morning at five o'clock, with three wagons attached, containing about 90 packages of goods, principally intended for shopkeepers in this town and Glasgow; on approaching the Whiston inclined plane, about nine miles from Liverpool, the wagons were discovered to be on fire, and before any effectual assistance could be given, the whole were enveloped in flames, and all the goods destroyed, amounting, it is supposed, in value to 2,000. It has not yet been ascertained correctly how the accident originated, but it is supposed to be from friction, owing to the great speed at which the train was travelling. The Railway Company intend paying the respective owners of the goods the full amount of their losses.

EXPEDITION TO THE EUFRATES.—Some time, we fear, must elapse before the necessary preliminaries are arranged for the progress of this expedition. A letter from Constantinople states, that the Grand Seignor had intimated to the Pasha of Egypt, by a Tartar, despatched on the 24th of June, that he could not prescribe the course to be pursued, until a reply was received from the government of England to certain propositions submitted to it.

MECHANICS IN SAILING.—The "Biblioteca Italiana," gives a detailed description of "the application of a windmill to the motion of vessels at sea, invented by Signor Giuseppe Brusetti, engineer." The vessel has two paddle-wheels like a steamboat, and the mechanism of the windmill is so contrived, that if there is any wind at all, from whatever it may blow, the vessel is propelled by the action of the sails, and may be steered in whatever direction is desired.

LUCIFER MATCHES would seem, according to the annexed paragraph, to be suspected at Bremen, as well as at Amboy, as of dangerous character.

HAMBURGH, July 21.—The magistrates of Bremen have issued a very rigorous prohibition of the newly invented lucifer matches, on account of the danger of fire which they may occasion by spontaneous combustion.—[Hamburg Paper.]

AGRICULTURE, &c.

[From Hovey's Gardener's Magazine.]
NOTICES OF SOME OF THE GARDENS AND NURSERIES IN THE NEIGHBORHOOD OF NEW YORK AND PHILADELPHIA; taken from Memoria made in the Month of March last.

[Continued from page 553.]

LINNEAN BOTANIC GARDEN AND NURSERY, LONG ISLAND: WILLIAM PRINCE & SONS, PROPRIETORS.—This extensively known establishment, though the last named in our remarks, will not by any means be considered the least in its character. It is one of the oldest nurseries

In the country, and also one of the most extensive, if not the very largest. It was established by the father of one of the present proprietors, and has become a family inheritance. When we take into consideration all that has been said in regard to this place, either by the proprietors themselves, or by the persons who have frequently visited it, among whom have been some very intelligent and able gardeners, who have visited this country, we feel ourselves almost incompetent to speak of the establishment, for fear that in our impartiality we might not be thought to do justice, by the proprietors, or be said to give too much praise by others. Much has been written in relation to it in Loudon's Magazine; and for a time, several communications appeared under various signatures, in regard to its extent and the variety of plants it contained.

We stated, when we commenced our remarks, that we should confine them chiefly to the appearance of plants in the green-houses, hot-houses, &c. We shall not at this time say any thing as regards the extent of this nursery, the variety of hardy plants it contains, or of its immense number of correspondents, agents, &c. We hope at another opportunity to do this, and to do it with justice and candor; we passed an hour or two in walking through it in the fall of 1831, but it is, we have understood, much improved since then; we know that the Messrs. Prince are too liberal not to give every indulgence for our statements. Mr. W. R. Prince informed us, the past spring, that as soon as circumstances would permit, he intended visiting England, and the Continent, partly with a view of becoming more acquainted with horticulture, and for the purpose of noticing the extent and variety of plants contained in their gardens and nurseries. He kindly promised to contribute to our pages, and our readers will, we have no doubt, be gratified with his remarks. The Messrs. Prince have lately added to their business as nurserymen, that of the seedsman, and are dealing largely in seeds.

The extent of glass, including the conservatory, green-houses, hot-house, frames, &c., we should judge to be upwards of four hundred feet in length. One of the houses, in which are kept the orange and lemon trees, is built in the old style, with large upright front sashes, and a dark roof. The collection of oranges and lemons is very large, and includes many more distinct varieties than any other we have ever observed; in their catalogue they enumerate upwards of seventy kinds; they are well grown, and many of them beautiful shaped plants. We saw an immense number of seedlings intended for stocks, to bud, or inarch upon. Messrs. Prince have been at great expense to procure from the Italian nurseries, which excel in this grand fruit, nearly all that are worthy of cultivation. Here we also noticed a fine stock of the different varieties of the magnolia, of which there is a large number of kinds, including the *M. Soulanguiana*. Hundreds of plants of the *Gardenia florida* and *G. radicans*; of the

different species and varieties of myrtles, a good stock.

It cannot be expected that in an extensive establishment like this, there would be many flowers in bloom. In the green-house, however, which adjoins the orangery, we saw one of the finest specimens of *Acacia verticillata*, profusely covered with its showy blossoms; *Metrosideros lanceolata*, and some species of *Banksia*, of which there were many plants, were also in flower; that much sought-after plant, the *Euphorbia grandiflora*, with its exquisite tubulous, rosy white blossoms, was in full bloom. Here was a fine collection of geraniums and a good variety of *Ericas*, though small plants. In the hot-house, which adjoins the green-house, and completes one range, we noticed several beautiful ferns. A good stock of that magnificent bulb, the *Crinum amabile*; some *Camassias*, *dracænas*, &c., young plants of the banana (*Musa sapientum*), several species of the cacti. In the *Camellia* house, not more than five or six plants were in flower; among them, however, was the *C. althæflora*, with several blossoms expanded; it is a brilliant kind, raised by the Messrs. Chandler, about the same time of the *corallina*, with which it is nearly equal in beauty; the others were the common varieties. The stock of camellias is probably the largest in the country, and includes the most rare. The reason why more camellias were not in flower, was from the cause that the shutters on the glass were not taken off for several days together, and the house kept as cool as possible, without endangering frost.

From the *Camellia* house, we entered another green-house filled with a variety of plants: myrtles, eugenias, azaleas, and a good stock of other kinds, which we do not recollect the names of. A few camellias which were placed here were in bloom, among which was the *C. Woodsii*, *maliflora*, and others; several species of *brunia* were prettily in flower. We were particularly struck by observing the very large number of some kinds of plants which the Messrs. Prince have in their collection, and we could enumerate many varieties; but they would not perhaps interest our readers, as most of them may be found in their catalogue.

In the frames, of which there were several, we found a good stock of Chinese roses, seedling magnolias, rhododendrons, and other plants. There was also a number of hardy shrubs and plants, which were laid in for executing orders to the south during winter, when they could not be taken from the open ground. When we visited this place a year before, we think the green-house plants, generally, looked in rather better health than they did the past spring; the gardener was at the former time repotting the whole of the camellias, and many other plants which had suffered from the want of it. Mr. Prince, Jr., informed us, upon our mentioning to him this fact, that their former gardener was very intelligent and well acquainted with his profession, but that he had left them; and

they had not yet procured another, as they expected one from England. We wonder at the good order which already exists, when we consider the multiplicity of avocations which must ensue, from the nursery and seed business combined.

We have thus completed our remarks, which have extended to a greater length than we at first anticipated, and perhaps farther than has been interesting to all our readers. Some would, probably, have rather read practical communications on the management and growth of plants, or the treatment of some objects of more utility; while others have been gratified in reading the advancement made in Horticulture and Floriculture by their neighbors. The object of a periodical Magazine is not to detail practices already well known, and laid down in works devoted to the subject of which it treats; but rather to give information of all new discoveries, and to record every improvement which may be found useful and advantageous to the scientific or practical gardener. These at first, however trifling they may often seem, when fully proved by repeated experiments, and correct observation, result in the foundation of some methods much more valuable, and of more immediate utility, than those previously adopted. The knowledge of gardening, like every other art, can only be advanced to any degree by calling in the assistance, and bringing to bear upon it those others, which enlighten, and throw some information upon its various branches. We therefore think, that those persons who suppose that mere practical papers are all that should fill the pages of a Magazine, take altogether a narrow and quite unconfined view of the subject; and that they have not yet made that progress in Horticulture, that enables them to see that its thorough knowledge, and proper application, is only to be obtained by acquiring some information of those sciences, without which it would be a tedious and uninteresting study, rather than one of the most pleasing and agreeable.

These observations are not made on the supposition that any such objections have, or will be heard; but to show how far we think a Magazine should extend its character. As regards the visiting of gardens and nurseries, we cannot here omit to urge upon every amateur, or lover of Horticulture, and more particularly every practical gardener, the importance resulting from such a course; not only should those in the vicinity of their situation be often inspected, but a tour should be made every few years to all those within the middle and northern sections of our country. To be confined to one spot, and to know nothing, but what may be learned from reading of what is done at other places, deprives one of all ambition, or of any desire to excel in his profession. An amateur gardener may imagine that he excels in the cultivation of a certain class of plants, and makes no effort to attain a greater degree of perfection; but when

he sees that another equals, his ambition is touched, and he is stimulated to greater exertion. It is from seeing and comparing, that we know our faults and learn how to improve and correct them.

NEW-YORK AMERICAN.

SEPTEMBER 5-11, 1835.

LITERARY NOTICES.

LEGACY FOR YOUNG LADIES, AND EVENINGS AT HOME, &c., &c., by the late Mrs. BARBAULD. 1 vol. N. Y. HENDERSON GREEN.—This is a republication of an old volume—old at least in this day of rapid succession of novelties. The pieces of which it is composed were found among Mrs. Barbauld's papers, and were given to the world under the sanction of Miss Lucy Aikin. The following is quite a pleasant paper, and inculcates a good lesson for being agreeable in society.

PI-NIC.—Pray, mamma, what is the meaning of *pic-nic*? I have heard lately once or twice of a *pic-nic supper*, and I cannot think what it means; I looked for the word in Johnson's Dictionary, and could not find it.

I should wonder if you had; the word was not coined in Johnson's time; and if it had been, I believe he would have disdained to insert it among the legitimate words of the language. I cannot tell you the derivation of the phrase; I believe *pic-nic* is originally a cant word, and was first applied to a supper or other meal in which the entertainment is not provided by any person, but each of the guests furnishes his dish. In a *pic-nic* supper one supplies the fowls, another the fish, another the wine and fruit, &c.; and they all sit down together and enjoy it.

A very sociable way of making an entertainment. Yes, and I would have you observe, that the principle of it may be extended to many other things. No one has a right to be entertained gratis in society; he must expend, if he wishes to enjoy. Conversation, particularly, is a *pic-nic* feast, where every one is to contribute something, according to his genius and ability. Different talents and acquirements compose the different dishes of the entertainment, and the greater variety the better; but every one must bring something, for society will not tolerate any one long who lives wholly at the expense of his neighbors. Did you not observe how agreeably we were entertained at Lady Isabella's party last night?

Yes; one of the young ladies sung, and another exhibited her drawings; and a gentleman told one very good story.

True: another lady who is much in the fashionable world gave us a great deal of anecdote; Dr. R., who is just returned from the continent, gave us an interesting account of the state of Germany; and in another part of the room a cluster was gathered round an Edinburgh student and a young Oxonian, who were holding a lively debate on the power of galvanism. But Lady Isabella herself was the charm of the party.

I think she talked very little; and I do not recollect any thing she said which was particularly striking.

That is true. But it was owing to her address and attention to her company that others talked and were heard by turns; that the modest were encouraged and drawn out, and those inclined to be noisy restrained and kept in order. She blended and harmonized the talents of each; brought those together who were likely to be agreeable to each other, and gave us no more of herself than was necessary to set off others. I noticed particularly her good offices to an accomplished but very bashful lady and a reserved man of science, who wished much to be known to one another, but who would never have been so without her introduction. As soon as she had fairly engaged them in an interesting conversation, she left them, regardless of her own entertainment, and seated herself by poor Mr. ——, purely because he was sitting in a corner and no one attended to him. You know that in chemical preparations two substances often require a third, to enable them to mix and unite together. Lady Isabella possesses this amalgamating power:—this is what she brings to the *pic-nic*. I should add, that two or three times I observed she

dexterously changed topics, and suppressed stories which were likely to bear hard on the profession or connexions of some of the company. In short, the party which was so agreeable under her harmonizing influence, would have had quite a different aspect without her. These merits, however, might easily escape a young observer. But I dare say you did not fail to notice Sir Henry B.—a lady, who was declaiming with so much enthusiasm, in the midst of a circle of gentlemen which she had drawn around her, upon the *beau ideal*.

No indeed, mamma; I never heard so much fire and feeling:—and what a flow of elegant language! I do not wonder her eloquence was so much admired.

She has a great deal of eloquence and taste: she has travelled, and is acquainted with the best works of art. I am not sure, however, whether the gentlemen were admiring most her declamation or the fine turn of her hands and arms. She has a different attitude for every sentiment. Some observations which she made upon the beauty of statues seemed to me to go to the very verge of what a modest female will allow herself to say upon such subjects,—but she has travelled. She was sensible that she could not fail to gain by the conversation while beauty of form was the subject of it.

Pray what did ——, the great poet, bring to the *pic-nic*, for I think he hardly opened his mouth?

He brought his fame. Many would be gratified with merely seeing him who had entertained them in their closets; and he who had so entertained them had a right to be himself entertained in that way which he had no talent for joining in. Let every one, I repeat, bring to the entertainment something of the best he possesses, and the *pic-nic* table will seldom fail to afford a plentiful banquet.

THE BEAUTIES OF WASHINGTON IRVING. 1 vol. 18 mo. Phil. CAREY, LEA & BLANCHARD.—What sad havoc does a bookseller's title make, sometimes with the modesty of an author. Here, from the stern necessity of complying with the requisitions of the law of copyright, on the one side—and of acquiescing, on the other, in the bookseller's fancy, we have our diffident countryman, actually taking out in his own name, a copyright for his own 'beauties.' This should have been otherwise ordered. Bating that, the little volume before us furnishes charming extracts from the various pages of Irving's works, principally his earlier ones, and may be said, in truth, to present many beauties. We make room only for one, which is a little Shandyan.

THE WALTZ.—As many of the retired matrons of this city, unskilled in "gestic lore," are doubtless ignorant of the movements and figures of this modest exhibition, I will endeavor to give some account of it in order that they may learn what odd capers their daughters sometimes cut when from under their guardian wings.

On a signal being given by the music, the gentleman seizes the lady round her waist; the lady, scorning to be out-done in courtesy, very politely takes the gentleman round the neck, with one arm resting against his shoulder to prevent encroachments. Away then they go, about, and about, and about—"About what, sir?"—About the room, madam, to be sure. The whole economy of this dance consists in turning round and round the room in a certain measured step, and it is truly astonishing that this continued revolution does not set all their heads swimming like a top; but I have been positively assured that it only occasions a gentle sensation which is marvellously agreeable. In the course of this circumnavigation, the dancers, in order to give the charm of variety are continually changing their relative situations,—now the gentleman, meaning no harm in the world, I assure you, madam, carelessly flings his arm about the lady's neck, with an air of celestial impudence; and anon, the lady, meaning as little harm as the gentleman, takes him round the waist with most ingenious modest languishment, to the great delight of numerous spectators and amateurs, who generally form a ring, as the mob do about a pair of amazons pulling caps, or a couple of fighting mastiffs. After continuing this divine interchange of hands, arms, &c. for half an hour or so, the lady begins to tire, and "with eyes upraised," in most bewitching languor, petitions her partner for a little more support. This is always given without hesi-

tration. The lady leans gently on his shoulder; their arms entwine in a thousand seducing, mischievous curves—don't be alarmed, madam—closer and closer they approach each other, and in conclusion, the parties being overcome with ecstatic fatigue, the lady seems almost sinking into the gentleman's arms, and then—"Well, sir! what then!—Lord! madam, how should I know.

THE HISTORY OF THE CONDITION OF WOMEN IN VARIOUS AGES AND NATIONS, by Mrs. D. C. CHILD, 2 vols.: Boston, J. ALLEN & CO. Mrs. Child has earned an enviable reputation by former publications, especially "The Mother's Book."—In that now before us, she essays a task which well becomes a woman's hand, to trace the history of her own sex, at different times, and among different nations. This will be read, we are bound to presume with interest, by the ladies, for what it says of their own sex, and by the gentlemen, for what it says of the other. The range taken by Mrs. Child is very extensive, both as to time and to countries. Looking to what was said of American women, we find the following among other statements.

As a general rule, education among the wealthy classes is much more neglected in the slave states than in other portions of the Union. This is owing partly to the want of schools and partly to the indolence induced by slavery. It is a common thing, even for the wives and daughters of distinguished men, to be as deficient in correct spelling, as they are in a knowledge of household duties. But many are sent to the free states for education; and not a few are admirable exceptions to the above remarks. The southern ladies in general are delicately formed, with pale complexions, a languid gracefulness of manner, and a certain aristocratic bearing, acquired only by the early habit of commanding those who are deemed immeasurably inferior.

The woman of the United States have no direct influence in politics; and here, as in England, it is deemed rather unfeminine to take an earnest interest in public affairs. But perhaps there is no country in the world, where women, as wives, sisters, and daughters, have more influence, or more freedom.—Some travellers have compassionated the condition of American women, because they spend so small a portion of their time in amusements; but this remark applies equally to men; and it could not well be otherwise in a country where so much is to be done, and where estates are so equally divided that few become very wealthy. It is true that Americans do not treat their women with the graceful gallantry of Frenchmen, or the chivalric deference of Spaniards; but in place of these external refinements, women have their respect, esteem, and undoubting confidence.

The class who are exempt from personal exertion, or at least from personal superintendence of their domestic avocations, is comparatively very small. Labor in open fields and streets is rarely performed by women, unless it be by foreign paupers lately arrived in the country. The buxom daughters of the Dutch farmers do indeed continue the old custom of raking hay, and the girls in Wethersfield, Connecticut, may often be seen at early dawn weeding the immense beds of onions, for which that town is celebrated. A large proportion of schools throughout the country are kept by women, and it is not uncommon for them to keep shops for the sale of English and French goods, toys, confectionary, &c. Mantua-making and millinery are, of course, their peculiar province; and many are employed to tend looms in factories, to set types in printing offices, and fold sheets for the bookbinders. By far the largest portion of these do not work for support, but to gain additional luxuries, which their parents cannot afford to furnish. Nothing surprises a foreigner more than the near approach to equality in the dress of different classes. The rich and fashionable are in most respects like those of Europe; and humble imitators have need of great diligence to copy their frequent changes. In the article of jewels, the most wealthy cannot indeed cope with their European models; for the diamonds of a foreign duchess often surpass in value the whole fortune, real and personal, of a rich American.

The habit of tight lacing, in order to form a slender waist, has been copied, like other European fashions. This practice, combined with the habit

of taking very little exercise in the open air, has an unfavorable effect upon freshness of complexion and beauty of figure. Excursions on horseback have lately become a very favorite amusement with American ladies.

In a country where the price of labor is so high, it is no uncommon thing to see domestics dressed as well as their employers. But though silk gowns and laces have taken the place of coarse calicos, the situation of domestics is by no means improved. They are less contented in their situation, and less conscientious in the discharge of their duties, than they were in more patriarchal times. Many attribute this difficulty to our democratic institutions; but I believe it originates in a want of republican principle, and not in the excess of it. If people would consider their domestics as sisters of the great human family, differing from them only in having, for the time being, a different use to perform in society—if they would have a tender regard to their health, a reasonable regard to their convenience, a friendly interest in their characters and plans—in a word, if they would perpetually acknowledge a reciprocity of duties—we should soon cease to hear complaints of the indifference and carelessness of domestics. While they are regarded as pieces of machinery, to whom nothing is due but the payment of wages, they cannot be expected to feel a deep interest for those who manifest so little interest in them.

American ladies are accused of being more prudish than foreigners. I hope the charge will always remain a true one; but there may be an excess even of a good thing; and when a sense of decorum led them to be squeamish about seeing Greenough's beautiful cherubs, because the marble innocents had no drapery about them, I acknowledge it reminded me of Sir Charles Grandison's remark: "Wottest thou not, my dear, how much indelicacy there is in thy delicacy?"

The tendency of modern times has continually been toward external refinement. The language used by Queen Elizabeth and the Queen of Navarre would not now be tolerated in any part of the world; yet the marriage of a divorced wife aroused more virtuous indignation in the court of Elizabeth, than a dozen such incidents would now occasion, in any European court. Many phrases and subjects of conversation which appear perfectly proper to an English or French woman, are not so considered by an American.

THE AMERICAN MONTHLY MAGAZINE, for September. Edited by C. F. HOFFMAN, and H. W. HERBERT. New York, GEO. DEARBORN.—A very good number—though to that, we are becoming so accustomed, in speaking of this periodical, that it ceases to sound like praise.

The Enquiry concerning the guilt of *Catharine Howard*, one of the fairest of the many wives sacrificed to the lust and ambition of Henry VIII., is curious—and the vindication at this late day of her innocence, in the face of all the historians of that period, is, to say the least, adventurous. The effort of the writer, a lady, is, to make out that she was the victim of a Protestant conspiracy, in which *Cranmer* was a chief instrument. This will, with difficulty, obtain credit now, however ingeniously it may be argued—and as to proof, there is and can be none. We extract the substance of this vindication.

During this year, (1541) the King went to York to hold an interview with his nephew, the King of Scotland; and it was whilst in that city, and influenced by his Catholic advisers, that he issued out a proclamation that all who had been aggrieved for want of justice should come to him and his council for redress. "His aim," says Rapin, "was to throw all past miscarriages on Cromwell, and put his subjects, particularly the northern people, (amongst whom there had been numerous insurrections,) in hopes of better times." Cranmer and the rest of the Reformation had not accompanied the King to York; they had remained in disgrace in London, or at a distance from the Court; therefore these, the only popular acts of Henry after his divorce from Catharine of Aragon, cannot by any possibility be attributed to them.

But, thus banished from court and driven from the councils of the King, what were the feelings of the Reformation? They saw their opponents triumphing in their disgrace: they must not only

give up all hopes of carrying on the work of spoliation and plunder, but they stood a chance of being called upon to refund what they had already appropriated to themselves; or they must contrive some means to destroy the influence of the Catholics with the King, and to kindle his wrath against all of that persuasion who possessed credit and power. It would not do to intrigue against any person comparatively indifferent to Henry, for should they even be successful whilst Catharine possessed the King's affections, other Catholic ministers would without doubt succeed those in present favor. They knew well Henry's jealous and irritable temper; they knew his fastidiousness with regard to female honor and delicacy: on these they relied for the fortunate issue of their plot. Had Catharine lived now, the press, with its three hundred newspapers might have saved her. Since his marriage, the King had daily blessed God for the happiness he had enjoyed with his Queen; and during his journey to York, to express his extreme satisfaction, his esteem and tenderness for her, he enjoined the Bishop of Lincoln, his confessor, to draw up a particular thanksgiving. Fond, however, as Henry is always acknowledged to have been of this wife, some part of the happiness he enjoyed it is reasonable to attribute to his having escaped from the councils of the Reformers, and to his being surrounded by those whose object was to promote the happiness of the people, from which that of the sovereign is inseparable.

It was during the visit to York that the Protestant plot against the life of the Queen was planned; and on the return of the court to London it was put in execution, and a bungling affair it was, affording but small credit to the genius for intrigue of its originators. John Lassels, a brother to a discarded servant to the old Duchess of Norfolk, and who, it is reasonable to suppose, was a Catholic, by his being in the service of the highest Catholic family in the kingdom, came to Cranmer, a Protestant and persecutor of Catholics, and told him in confidence what he had heard his sister say respecting the lewdness of the Queen previous to her marriage! Who would now credit such hearsay evidence?—We are not, however told why, if this man (Lassels) thought his secret such a mighty important affair, he had not communicated it previous to the marriage instead of about a twelvemonth after; or why he did not select some honorable Catholic nobleman to confide it to, instead of Cranmer, whom, if a Catholic, he must have looked upon as little better than the arch-fiend himself. But such a one would have been rather cautious how he gave credence to the slander of discarded menials.

Cranmer took upon himself the amiable office of undeceiving the King with respect to the virtue of the Queen, and was near paying with his life the penalty his baseness merited; for Henry disbelieved every word of the statement made to him. Proofs must now be had, for the conspirators stood in a perilous situation. Witnesses were sought where alone they were to be purchased—amongst disgraced mercials and the lowest refuse of society. Bribery and corruption were set to work, and it is not improbable that the wealth of which the Catholic Church had been despoiled, was now employed to bring the head of a beautiful and innocent Catholic Queen to the block. Henry, we are told, burst into tears when he was told of the Queen's misconduct. But his jealousy and violent passions made him fall into the plot of the Protestants; their aim was now attained, and all the rest was easy.

Cranmer, his great supporter, the Duke of Suffolk, the Bishop of Winchester, and Writheley Earl of Southampton, who had shared so much of the plunder of the church, who had gained possession of the property and revenues of the Abbey of Winchester, and of the manors of Micheldever and Stratton, once the private property of the immortal Alfred, were the persons appointed to examine the Queen. What justice had she to expect at such hands? When first accused, we are told she denied all guilt; but on her second examination she is said to have confessed, though neither the bill of attainder passed against her, nor the journals of Parliament state what she confessed. She was condemned by a secret tribunal, in direct violation of the laws of the country, and the members of which were the bitter enemies of her religion and of her family, instead of being tried, according to law and justice, before the peers of the realm. She was found guilty upon such evidence as would not be received in a court of justice in the present day, without a single advocate to plead her cause and demand for her justice—not even two such dough-

ty heroes "as kept together in their chivalry,"* on a late similar occasion.

The venerable Duchess of Norfolk was condemned to be beheaded for not informing the King of her grand-daughter's incontinence before marriage; but this act was so odious to the nation, that it was thought prudent not to put it into execution, and the Duchess only suffered a long imprisonment. But the scaffold was deluged with blood, amongst which streamed some of the noblest in England. The name of Catharine Howard has been linked with infamy, and to the success of this Protestant plot may be attributed all the penal statutes and cruel persecutions that the Catholics endured in England and Ireland for near three hundred years.

THE AUTO-BIOGRAPHY OF WASHINGTON WILDING is from a skilful pen, as the annexed portion will prove, the whole scene is life-like.

It was soon after the lamentable affair of General Hull had been bruited abroad through the country, awakening everywhere mingled feelings of grief, dismay and indignation, that the students of our college, were one Sunday collected in the village church, whose white spire shot above the elms that surrounded it, within a few yards of the institution. The discourse of the preacher was suggested by the then alarming condition of the country, and the fervid puritan dwelt upon the duties which became each citizen of the republic at such a crisis, with an emphatic sternness which would have put some thoughts of iron into the most fainting bosom. He commenced, I well remember, by deplored the original declaration of hostilities, which he averred was based upon grounds that at the least were questionable. But he insisted that, however good men might have wished to keep off so calamitous an event, yet, as it could only overtake them at last by the consent of Providence, it was their duty not to shrink from its decrees under any extremity; that it was the will of Heaven that we should pass through another trial like that our fathers had endured, and it mattered not whose act had precipitated the moment of that trial; that our duty to God and our country alike required that we should now fling all thoughts but of them behind us; that we should go forth as one man to meet the invaders of our soil, and leave the rest to Him whose blessings descend alike in the sunshine and the storm, at the unsullied altar and upon the blood-stained battlefield!

The clear note of a bugle rang through the village as the patriot clergyman here paused to add the final blessing of the service. The tramp of armed men was heard in the threshold of the church, and the summer breeze that floated through the open porch unfurled the proud standard of our country as, with uncovered heads, a band of regulars formed in silence before the door. The lips of the preacher had not yet begun to move in prayer, as with uplifted hands he bent forward towards the glorious emblem of our Union, before the young and the old, the sturdy yeoman and the stripping student, the bright village maiden and her hoary sire rose; as by one impulse, to their feet; and not an eye in that assembly but glistened, not a heart but vibrated while their pastor poured forth his thrilling appeal to Heaven for a blessing on that banner wherever its folds may wave.

The congregation was dismissed. The recruiting party—for such it proved to be—filed slowly away from the church door, and winding down a green lane hard by, soon disappeared behind the copse by which it was skirted. The rustic equipages of the farmers who lived remote from the meeting were drawn from the low shed beside it, and as each received its freight in decorous silence they trundled off at measured intervals through the main street of the village. The young men of the congregation appeared to linger about the church, as grouped here and there beneath the cloistered boughs of the ancient elms, they were engaged in low and earnest discussion. At last these also disappeared, and though the light laugh of some giddy maiden might reach the ear, as her white dress fluttered for a moment above the stile, while taking her way homeward across the fields, yet the calm of a New England Sabbath soon settled over the place, and left the landscape to the repose of summer noon-tide.

Five days afterward, and what a different scene

* In one of Lord Denman's speeches, alluding to the trial of Queen Caroline, he said, he and Lord Brougham "had kept together in their chivalry."

was there presented! A company of raw volunteers was forming upon the green esplanade in front of the meeting-house, preparatory to their taking up their line of march to join the Northern army, whose active campaign had just opened.—There were but sixty of us altogether; and though among them were several students from other parts of the Union, yet the majority were the flower of the youth of the adjacent country.

BEAUTIES OF WASHINGTON IRVING.—The selection bearing the foregoing title was not made by Mr. I. It originally appeared in England, and was the piratical act of some English bookseller. A copy was stereotyped by some American publisher, and was about to be put to press in this country when he was informed that he would be liable to prosecution for infringing the copy rights of the works selected from. Mr. I. purchased the plates to destroy them. He was afterwards induced to permit his regular publishers, Messrs. Carey, Lea & Blanchard, to issue an edition for their own benefit. The copy right was taken out and advertised by Mr. I.'s agent, without his knowledge.

This explanation, derived from an authentic source, is due to Mr. I., that he may not stand chargeable with the indelicacy of selecting and pointing out any portions of his writings, as "beauties," and is the more proper at our hands, because of the remarks we made on this little volume on Saturday.

EUROPEAN INTELLIGENCE.

LATEST FROM EUROPE.—The packet ship Columbus, of 1st August, from Liverpool, brings our London papers up to that date.

The explosion in Paris, of a new sort of infernal machine, calculated apparently to sweep the whole Orleans dynasty at one blow from the earth, is the chief item of intelligence. This attempt, of which the particulars will be found among our extracts, was made on the anniversary of one of the glorious *three days*, and caused, as will be seen, the instant death of old Mortier, *Due de Tresise*, and several other officers in the staff of the King. None of the Royal family, however, though all the male part of it were in the *cortege*, sustained any injury.

The act would seem to have been one of individual vengeance, and was contrived certainly with very deadly purpose and skill.

The remarkable preservation of all the Royal family will serve to confirm their power, as being, as it will be represented with more than ordinary proofs to be, under the immediate protection of Heaven.

Of other news we find little of interest.

[From *Galignani's Messenger*, Paris, July 29.]

ATTEMPT UPON THE KING'S LIFE BY AN INFERNAL MACHINE.

"It is with the deepest concern that we lay before our readers the details of the above horrible event, that took place yesterday, (July 28th.) After having passed along the Boulevard to the furthest point at which the national guards and the troops were drawn up, his Majesty, accompanied by the Duke of Orleans, the Duke de Nemours, the Prince of Joinville, and a numerous and brilliant staff, was returning along the same line to the Place Vendome, where the troops were to file off before him. At 12 o'clock, at the moment when he had reached the Boulevard du Temple, a little before the Theatre des Farnambules, a tremendous explosion resembling regular platoon firing was heard. At first it was supposed to be a discharge of fire works, but the falling and cries of the victims soon revealed the reality, and excessive confusion ensued—an Infernal Machine had just poured forth a shower of balls upon the *cortege* that surrounded the King! Marshal Mortier, Duke de Turin, fell and expired without a word. Several other officers, and some of the National Guards were also killed, and a considerable number wounded. The falling of some horses, among which was that of Marshal Mortier, and the capering of others, added to the tumult—which it would be difficult to describe. During this scene, the King, whose arm had been grazed by a bullet, and whose horse had received a wound in the neck, maintained the calmness for which he is distinguished, and displayed his wonderful courage by riding up in the direction of the house from which the explosion came.

After the first emotion had passed, the *cortege* continued its route amid shouts of joy for the preservation of the King's life, and threats of vengeance against the assassins. The bodies of the slain, and the persons who are wounded, were immediately carried to the Cafe Sine opposite, where medical assistance was afforded to such as were still alive. Smoke was seen to issue from the third story of the house No. 50, on the Boulevard du Temple, of which the ground and first floor were occupied by a wine dealer, named Parault. Each story consisted of one chamber, which is lighted by a single window in front. The house was immediately surrounded, and all the persons found in it arrested; the room in which the machine had been constructed is very small, being six feet and a half by seven feet.

The machine was made with great skill, of wood, with iron braces, and extremely solid. Two uprights supported two cross bars of wood, placed parallel to the window, and in these were placed 20 gun barrels. The front cross bar placed at about a foot from the window was rather lower than that behind, so that the balls might reach the body of a man on horseback in the middle of the Boulevard. The charge was so heavy, that five out of the twenty-five barrels had burst, notwithstanding they were very substantial and new. The assassin was immediately taken into custody. About three months ago he hired the rooms of the second and third stories of M. Dalleagne, the proprietor.—He gave his name Girard, a mechanician, and appeared to be about 24 years of age. His room has a window in front and another behind, and he had taken the precaution to fasten a rope to the latter, to assist him in making his escape. By the bursting of some of the barrels at the moment of the explosion, the assassin was wounded in the forehead, the neck, and the lip. Notwithstanding his wounds, he rushed out at the window. Some police officers having ran into the inner court, and seeing Girard slipping down the rope, one of them exclaimed, "Ah wretch, we have you." Girard, who was at the moment at the height of a wall, threw himself over it into an adjoining yard, and there was apprehended.

The Minister of the Interior, the Prefect of the Police, and several magistrates went to the house, and in the assassin's chamber they found the remains of the infernal machine still smoking—a straw bed, and a fire lighted. A delay of half a second perhaps in the explosion saved the life of the King. The *cortege* advanced in the following order:—The King, the Prince de Joinville, the Duke of Orleans, the Duke de Nemours, Marshal Lobau and Marshal Mortier. All those in the *cortege* who were wounded were nearly all on the same line as Marshal Mortier. The news of the attempt was rapidly propagated through the capital, and produced a powerful sensation. General de Ruminigny, Aid-de-Camp to the King, set off full gallop to inform the Queen that his majesty and the Prince had escaped the danger, fearing that she might have been seriously alarmed if she had heard of the event from any one that had not witnessed it. In passing along the lines he mentioned to several officers what had occurred, and soon there was not a soldier that remained ignorant of it. As the troops of the line did not extend to the Boulevard du Temple, they were ordered to shift in that direction, that they might be ready to act in case of attempt at disturbance.

At the moment of filing off before the King, the national guards shouted *Vive le Roi!* which was answered by the troops of the line. The guards of the 8th legion, which had lost some of its officers and men, added cries of *A bas les assassins!* The King returned to the Tuilleries about 5 o'clock, evidently deeply affected by the scene he had witnessed. During the whole of the afternoon and evening, crowds flocked out of curiosity to the melancholy spot, in consequence of which a strong detachment of Municipal Guards was stationed there to keep the peace. The following are the persons whose lives have been ascertained to have been sacrificed: Marshal the Duke Treviso struck in the heart by a ball; General de Lachasse de Terigny, struck on the forehead by a ball; Captain Villate, aide-de-camp to Marshal Maison; Lieut. Colonel

Rieussec, of the 8th Legion, struck by three balls; Messrs. Prudhomme, Richard, Leger, and Bennett, Grenadiers of the 8th Legion; a Colonel in the army, two citizens, a woman and a child, whose names we were unable to learn.

Galignani's *Messenger* of the 30th says—The number of victims is much more considerable than was at first believed. Several persons wounded were immediately taken to their own homes, and therefore were not included in the list before published. The number of killed and wounded is said to be 34, including sixteen who died immediately, or subsequently perished from their wounds. Among them was M. Labronate, aged 70 a member of the Legion of Honor, one of the oldest receivers of taxes of Paris. His wounds are very serious, but hopes are entertained that his life may be saved.—Out of eight persons carried to the Hospital of St. Louis, four have undergone amputation.

At the moment the explosion took place, the king had inclined slightly on one side to receive a petition. The Duke de Broglie received a bullet through the collar of his coat.

In Paris, on the 28th, a grand dinner was given at the Tuilleries, at which all the ambassadors and foreign ministers were present. At dinner and throughout the evening, the King displayed the utmost calmness. He frequently expressed in affecting terms his regret at the death of Marshal Mortier and the other victims of the day.

The *Moniteur* also contains a royal proclamation and ordonnance to the following effect:—"The fêtes for the celebration of the anniversary of July, 1830, shall not be continued. A solemn funeral service shall be performed in honor of the victims of the attempt of this day.

The Government has decided that one funeral procession shall be formed of all the victims of Tuesday, instead of taking place separately. The Chamber of Peers had determined to go into mourning for five days from that of the funerals.

Girard, the assassin, as stated in the *Paris Messenger*, was employed as a dealer in second-hand articles of all kinds, and more particularly engaged in cleaning and repairing fire-arms, and is a very able and skilful workman. He was known among his companions to entertain legitimist opinions, and it was even believed that he received a pension from the Duchess of Angouleme. He is 29 years of age. Notwithstanding the serious nature of his wounds, he is expected to recover, and is now able to converse. Being questioned as to his motives for committing such a crime, and urged to declare whether he had any accomplice, he fully admitted his guilt, and said he knew his fate was inevitable; but as to his motives, he confines himself to saying that he disliked the king, and further declared, that were he even put to the torture he could not name his accomplice, for in fact and in truth, he had none. Nevertheless, a woman who resides behind the house, has deposed, that an instant after the explosion, she saw two men, both wounded, making their escape. In the room of Girard, two white hats of different sizes were found, which would indicate that at least two parties were cognizant to the construction of the murderous engine. Upwards of one hundred arrests, it is stated, have been made.

The news of the attempt to assassinate the King of France had reached England by Telegraph, and caused considerable sensation.

MARSHAL MORTIER, DUKE DE TREVISO.—Marshal Mortier, Duke de Treviso, whose death is reported to have occurred on Tuesday by the bursting of a *machine infernale*, directed against the life of King Louis Philippe, was born in 1768, consequently he was in his 68th year. He was the son of a merchant, who represented the *tiers-état* of Cambresis at the States-General, in 1789. The Marshal was originally brought up in his father's profession, and quitted his station as clerk in a mercantile counting-house at Dunkirk in 1791 to serve in the first battalion of Volunteers of the Department of the north, in which he was at once received with the rank of Captain. Having distinguished himself on various occasions, he was made an Adjutant-General in 1793. His first command as a general officer was at the attack of the fortress of St. Pierre. In 1796 he had the command of the advanced guard of the Army of the Sambre-et-Meuse, then under the orders of General Lefevre. On the 31st of May of the same year, he attacked the Austrians, defeated them, and drove them beyond the Archer. During the whole of the war which was closed by the treaty of

Campo-Formio, we find General Mortier actively engaged, and invariably successful in every enterprise with which he was intrusted by his superiors in command. In the campaign of 1799 he had again the command of the advance guard. His services in that station were, in a great measure, conducive to the success of the French arms, and to the high opinion that Napoleon conceived of his military talents. It was General Mortier whom Napoleon sent, in 1803, at the head of his first expedition to Hanover. The whole of the military operations were, on the part of the French army, directed by General Mortier, and the result was the memorable Convention of Suhlingen, by which the Electorate of Hanover was placed in the hands of the French. On his return to Paris he was appointed to the command of the artillery of the Guard, and in 1804 he was raised, with other officers of superior merit, to the rank of a Marshal, and decorated with the Grand Cross of the newly instituted order of the Legion of Honor. In the campaigns of 1805 and 1806, General Mortier was at the head of one of the divisions of the grand army, commanded in chief by Napoleon in person. The greatest feat of arms ever achieved by any French troops fell during this war to the lot of a corps of 4,000, commanded by Marshal Mortier. Having fallen in with the whole of the Russian army, led by Kutusoff, and forced to accept battle or lay down his arms, Mortier fought with a valor and superiority of tactics which allowed sufficient time for considerable reinforcements to come to his aid. This affair gave great celebrity to Mortier's name throughout the French army and in France. His fellow-citizens at Cambrai wished to raise a public monument in that city in memory of his action with Kutusoff, but Mortier positively refused to allow it. It was Marshal Mortier who captured Hamburg at the close of 1806. On that occasion he displayed a rancorous hostility against every thing that was English, which greatly surprised all who had any knowledge of his early life. In his younger days he had lived a good deal in Scotland, and the counting-house in Dunkirk where he received his commercial education, was that of an English merchant. His intimacy and intercourse with the natives of this country, of which he spoke the language fluently, had been such, that few would believe it was in pursuance of orders issued from himself that the whole of the British residents in Hamburg were thrown into prison, and every particle of their property confiscated. In 1808, he was raised to the imperial Dukedom of Treviso, receiving at the same time a "dotation," attached to the title, of 100,000 francs (4000£) per annum, payable out of Crown domains of Hanover. It is hardly necessary to say that he lost this income at the peace of 1814. Soon after the opening of the Spanish war he was sent to Spain, where he co-operated with several successive Commanders in Chief, and fought the battle of Ocaña, which he and his countrymen have claimed as having been won by the corps under his immediate command. Subsequently he accompanied Napoleon to Russia, and it was to him that the hazardous undertaking of blowing up the Kremlin at Moscow was intrusted. He took an active part in the whole of this and the subsequent campaigns under Napoleon, up to the peace. During the earlier part of the reign of Louis XVIII., Marshal Mortier spent his time in Paris, apparently little desirous of figuring in the military or political world. In 1816, however, he was appointed Commandant of the 15th military division, the seat of which is Rouen, and soon after he was elected by his native department of the north Member of the Chamber of Deputies, in which he sat till 1819, when he was raised to the Peerage. In 1834, on the resignation by Marshal Soult of the Presidency of the Council and Ministry of War, the whole Ministry being then disjointed, and, much against the wish of the King, on the eve of dissolution, Marshal Mortier was solicited by the King to accept the offices which Marshal Soult had given up, he being the only individual at that moment with whom, and under whose presidency, the other members of the Soult Administration were willing to remain in office. The Marshal yielded with extreme reluctance to the wishes of the King. He knew that polities were not his element, and soon after, at the Ministerial council table, as well as on the Ministerial benches in the two Legislative Chambers, he felt that he was not in his proper place. The remarks and jibes of the press about his silence in the Chambers, and his inactivity as a Minister, however good naturedly expressed, at length drove the Duke

de Treviso to the positive resolution of withdrawing forever from the Ministerial career. One morning in the early part of February, therefore, he waited on the King, placed his act of resignation in the royal hands, and gave his Majesty to understand that his resolution to withdraw was not to be changed. Mortier is among the few of Napoleon's Generals whose reputation for integrity and private worth has remained unquestioned through life. Though not very popular, owing to a natural stiffness in his manners, not more habitual among, than agreeable to, the French, he was always spoken of with respect, and to the last day of his existence he has enjoyed the undivided esteem of his countrymen."—[Times.]

A disastrous explosion occurred at Greenock on the 24th July, on board the Steamboat Earl Grey—the boiler of which burst, while lying at the wharf, and killed five, and injured more or less twenty-five persons.

CURIOS MANUSCRIPT.—In a list of ancient literary manuscripts, and remarkable manuscripts, recently announced for sale by the Messrs. Southey, of London, is one with the following title:

"A Letter from the Earl of Bath to Lord Norreys, dated April 16, 1681—being 'A proposal for the sale of the Province of New Jersey, a country almost as large as England, belonging to the late George Carteret, for the small sum of between 5000 and 6000 pounds.'"

Thus it appears that one hundred and fifty-four years ago, the whole State of New Jersey was offered for sale for the sum of about twenty-five thousand dollars.—[Gazette.]

THE GRAND DUKE CONSTANTINE AND HIS WIFE.—“Three or four times a week I received commands to attend his levee, and not unfrequently to breakfast—a meal which he commonly took at about 11 o'clock in the day. On these occasions he seemed to take considerable pleasure in all I could tell him of England and its modes and customs—its army, its capital, and its domestic and commercial resources. If on some of these subjects I confessed my ignorance, he would eye me with a doubting and suspicious glance, urge me again and again on the same point, as if he thought I was unwilling to explain, or expressly reserved that of which I confess I was utterly ignorant; or he would dash up in towering passion, break into some intemperate expressions, and declare that I ought to be ashamed of myself not to be acquainted with statistics, which even foreigners knew well. In these sudden and unforeseen excesses of passion, he was with difficulty pacified—a task upon which I never dared venture—I could only look on and listen in silence; but if his elegant and amiable Princess was present, as was not unfrequently the case, her graceful tenderness and endearments calmed down the storm: she petted him like a froward child, and with a doubting pause or a half-muttered growl his good humor returned. This charming and accomplished creature was his wife, by one of those left-handed marriages so common and well understood among the German Princes, and it was always a matter of surprise to me by what strange freak of destiny a being so mild and gentle in manners, so graceful, so tender and amiable in all the acts and movements of her life, could have been linked to such a monster: and what seems stranger still, she loved him, and thence, perhaps, the secret of her influence. I have seen him often playing with her long ringlets, or fondling in his great paw the prettiest and whitest hand in the world, or kissing his hand to her at a window with an air that actually approached to tenderness. She, indeed, was the only person who possessed any real influence over his mind, and her gentle ways could soothe the wild beast in his angriest moods: she would follow him as he stamped about the room: she exposulated, she wheedled, she caressed, she would try with a tear in her eye to make him laugh; and it would seem that, almost in spite of himself, the smile she sought so anxiously came at her bidding: he would look into her eyes, kiss her little hand, and seat himself again without another allusion to the cause of the explosion. He seemed almost to encourage her interference, and he played with her as a child would with a doll; but she was a plaything with which he never quarrelled. He seemed proud, too, of her mental acquirements, and he delighted in the display of her accomplishments.—Indeed, I at one time attributed it as a principal

cause why I was so often an invited guest at the Belvidere, that it afforded her the opportunity of speaking English—an accomplishment in which she excelled: she possessed considerable fluency, and that least possible smack of foreign accent which could not be otherwise than pleasing on the lips of a pretty woman. Constantine took great pleasure in setting us talking in that language—he rubbed his hands, and listened with evident gratification as she prattled away in a tongue which he did not understand, and continued repeatedly to express his pleasure and satisfaction. His tenderness for this mild and gentle being was at least a redeeming point in his character, and his attachment was repaid on her part by the most devoted and entire affection. Poor thing! his death broke the slight cord which attached her to life; whether it was that her whole soul, her existence, was wrapped up in him who had raised her from comparative obscurity almost to a throne, or whether it was that she missed the being who, however harsh to others, was always, after his fashion, kind to her—whom she had been long accustomed to cajole, to fondle, to guide, to moderate—the link was severed—her gentle heart broke under the shock, and, after hardly two months of a painful widowhood, she sunk into the grave which had received her husband.”—[Monthly Magazine.]

A young officer of the French navy, who was a long time stationed at Senegal, tamed a young hyena, which became attached to him in a degree very unusual for this ferocious animal. On his return to Brest, the Maritime Prefect induced him to send his favorite as a present to the Garden of Plants. After a lapse of time the officer came to Paris, and naturally went to visit the menagerie. In the mean time, the animal had resumed all its native ferocity, and became violent the moment any of the spectators even looked steadfastly at it. At the first sight, however, of his former master, the hyena recognised him, showed the utmost satisfaction, mildly moving his head and wagging his tail, as if inviting the officer to caress him. The officer, to the terror of the spectator, approached the animal, stroked his back, and even put his hand into the creature's mouth, but still greater was their astonishment when they saw the beast return his caresses by gently licking his hands.

The *Diario di Roma* mentions the publication at Rome of a small pamphlet entitled, *The Pharaohs in the times of Abraham, Joseph and Moses, as known by the Scriptures and the Monuments of the Egyptians*. It fixes, by accurate calculations, the commencement of the kingdom of Egypt—the Pharaoh by whom Sarah was taken from Abraham, when he came into that country—which of them brought up Joseph, the son of Jacob, and made him viceroy—which of them it was whose daughter saved Moses—and, finally, the Pharaoh who was drowned in the Red Sea.

“Mr. Thomas Gill, son of Mr. Gill, of the French Horn Inn, Sarum, was married on the 28th June, at Salisbury, by the Rev. Dr. Hawes, to a Miss Angell, late of Newfoundland, by which marriage he will shortly come into possession of a number of estates and money, amounting in value to 1,000,000£, left by a Mr. Angell, who died some 60 years since. The Chois estate, near Lambeth, forms part of the landed property, and to possess which he must bear the name and arms of the Angell family. He is at present the mail-cart man on the line of road from Warminster to Sarum.”—[Devizes Gazette.]

The *Académie des Inscriptions et Belles Lettres* has elected M. de Hammer, author of the *History of the Ottoman Empire*, and many other works, one of its foreign Associates, in the room of the late Baron William de Humboldt.

In making a new sluice to the citadel of Calais, an ancient vessel, forty-five feet in length, twelve in breadth, and eight in depth, was discovered in the ground; strongly built, though its measurement does not exceed eighty tons, and has evidently never been covered with a deck. Coins were found in it with the date of 1219; and, as it lay twelve feet below the foundations of the inner wall of the fortifications erected by the Count de Boulogne, it is to be presumed that the vessel was not discovered at that period. It cannot be ascertained whether it was ever at sea, but there is reason to believe it was erected before Calais was made a regular port, and when the sea ran far up the present land.—[Paris paper.]

A new tulip, reared by M. Patrix, a gardener at Ghent, and which the Society of Florists of the town has named the "Citadel of Antwerp," has been purchased by Mr. Vandernick, a horticulturist of Amsterdam, who was formerly a captain in the Dutch navy, at the price of 16,000 francs.—[Paris paper.]

[From Kirby's Bridgewater Treatise.]

DULNESS OF A VEGETABLE WORLD.—Unpeopled by animals, the verdant earth in all its primitive and untarnished beauty, though laid with flowers, exhibiting in endless variety every mixture and shade of color that can gladden the sight—though fanned by gales breathing Sabean odors to gratify the scent—though tempting the appetite by delicious fruits of every flavor—still would be a scene without the breath of life. No motion would be seen but of the passing clouds, of the fluctuating waters, and of the waving boughs; no voice heard but of the elements.

Was a single pair placed in this paradise, though at first it would seem that there was gratification for every sense, and joy would possess the heart, and admiration fill the soul with pleasure,—yet after the novelty of the spectacle had ceased, and the effect of its first impression was obliterated, a void would soon be felt, something more would seem wanting to animate the otherwise lovely scene; a longing would arise in the mind for some beings, varying in form and magnitude, furnished with organs that would enable them to traverse and enliven the lower-regions of the atmosphere, others that might course over the earth's surface, and others that could win their easy way through its waters, so that all by their numbers and the variety of their motions, might exhibit a striking and interesting contrast to the fixed and unconscious vitality of the vegetable kingdom.

ADVANTAGES OF MIGRATION OF ANIMALS.—If we give this subject of the migration of animals due consideration, and reflect what would be the consequence if no animals ever changed their quarters, we shall find abundant reason for thankfulness to the Almighty Father of the Universe, for the care he has taken of his whole family, and of his creature man in particular, consulting not only his sustentation and the gratification of his palate by multiplying and varying his food, but also that of his other senses, by the beauty, motions, and music of the animals that are his summer or winter visitors: did the nightingale forsake our groves, the swallow our houses and gardens, the cod-fish, mackerel, salmon, and herring our seas, and all the other animals that occasionally visit us, their several haunts, how vast would be the abstraction from the pleasure and comfort of our lives!

By means of these migrations, the profits and enjoyments derivable from the animal creation are also more equally divided, at one season visiting the South, and enlivening their winter, and at another adding to the vernal and summer delights of the inhabitants of the less genial regions of the North, and making up to him for the privations of winter. Had the Creator so willed, all these animals might have been organized so as not to require a warmer or a colder climate for the breeding or rearing of their young; but his will was, that some of his best gifts should thus oscillate, as it were, between two points, that the benefit they conferred might be more widely distributed, and not become the sole property of the inhabitants of one climate;—thus the swallow gladdens the sight both of the Briton and the African; and the herring visits the coasts, and the salmon the rivers, of every region of the globe. What can more strongly mark the design, and the intention of an all-powerful, all-wise, and benevolent Being, than that such a variety of animals should be so organized and circumstanced as to be directed annually, by some pressing want, to seek distant climates, and, after a certain period, to return again to their former quarters; and that this instinct should be productive of so much good to mankind, and, at the same time be necessary, under its present circumstances, for the preservation or propagation of the species of these several animals?

THE POETRY OF LIFE.—We hear a great deal of the philosophy of life—the poetry of life is equally real, and far more generally diffused. It is that spirit which mingles itself with all our hopes and affections, sorrows, and even death, and beautifies them all. It mingles itself with the ambition of aspirants in every honorable track—with the emotions of the lover, with the ardor of the hero, till it

covers the battle field pit from his eyes, and shows him only the halo of glory—with the patriotism of the righteous statesman—with all our social attachments and intercourse, and spreads the roses of heaven on the beaten path of our daily life. No human speculation, no human pursuit, no human feeling, which is not utterly selfish and base, but draws fire and force from this spirit—and is borne by its elating influence towards its legitimate end. It is impossible to point out any nation that has become great, or even successful for a time, without it. Of the ancient nations we need not speak—in all of which we know anything but the barest facts, poetry, and the intense desire of glory, which cannot exist totally distinct from poetical feeling, were found. From some of them what have we not received! The very Saracens, when, under Mahomet, they suddenly overflowed Asia, Africa, and part of Europe, were set on fire by the poetic charms of his new paradise:—the Tutons, that extinguished the last sparks of the Roman empire, and laid the foundations of the present European kingdoms, were not led hither merely for food—it was Valhalla, and the poetic legends of their Scalds, that armed and animated them. We cannot take away poetry from life, without reducing it to the level of animal stupidity. In our days, stupendous events have passed on the face of the civilized world, and equally extraordinary has been the development of poetic power. A host of great names will be left to posterity, and with them a host of new impulses that will fill futurity with increase of light and happiness; and as Christianity becomes better understood, as our natures become better understood, as the spirit of love begins to predominate over the spirit of selfishness, the true poetry of life, and its power, shall be more and more acknowledged. Men will feel that in aspiring after true honor—in desiring to become benefactors of men—to spread knowledge and intellectual beauty, they are but giving exercise to the divine spirit of poetry which is sent down from heaven to warm and embellish every human heart, though often unseen and unacknowledged; and they will work in the spirit of love and in its enjoyment.—[A Day Dream at Tintagel, by W. Howitt.]

What is there in a name?—The London Literary Gazette, in a complimentary notice of *Outre-Mer*, by Professor Longfellow, of Dartmouth College in New Hampshire, ascribes the work to Mr. Longbody!

SUMMARY.

We learn from the Arkansas Gazette, that the rumored attack on Major Mason's command by the Camanchee and Pawnee Indians was erroneous. The report originated with a party of Osages. The chiefs of the supposed hostile band have since visited Major Mason's camp and convinced him that they had no hostile resolutions towards his detachment.

The same paper states that it was sickly at Fort Gibson at the period of the last dates from that post. Governor Stokes one of the Commissioners to treat with the Indians, was not able to sit up, but he intended to set out, or attempt it, on the 5th of August, for the place of rendezvous, (Major Mason's camp,) 160 miles distant from the post of Gibson. A large detachment of infantry was to accompany Governor Stokes to the treaty ground

An extra Official Gazette was published at Quebec on Tuesday, containing a Proclamation of His Excellency the Right Hon. the Earl of Gosford, announcing his appointment as Captain General and Governor-in-Chief in and over the Provinces of Upper and Lower Canada respectively; and commanding His Majesty's Officers and Ministers in Lower Canada to continue in the due execution of their respective offices; and the Commission of His Majesty, appointing the Right Hon. the Earl of Gosford, the Right Hon. Sir Charles Edward Grey, and Sir George Gipps, Commissioners for the investigation of all grievances affecting His Majesty's subjects in the Province of Lower Canada, in what relates to the Government of the Province.—[Montreal Gaz.]

A right whale was captured in the beginning of

last month, on Watt's Shoal, (off the mouth of the Potomac,) by Captain Jonah Porter, residing near the spot, who, after getting him fast aground, pierced him with iron ram-rods, instead of a harpoon. The Norfolk Herald says "the monster was 58 feet in length, and yielded, notwithstanding Capt. Parker's limited knowledge of the process of procuring it, eighteen barrels of oil, 14 of which were sent to Fredericksburg and sold."

SOUTH FERRY.—We understand that the lease for this ferry has been executed. Our City Council and the Company have taken the most prompt and efficient measures to put the ferry in complete operation very soon. The grading of Atlantic st. to Parmentier's Garden has been completed, and the paving will be completed this fall.

The guns of the battery aimed at the King of the French which did not go off as intended, were the first five, pointing towards the head of the column. By this remarkable circumstance the life of the King was preserved. After the affray the King and the Duke of Orleans were both found to have wounds upon them, but they were supposed to have been made in the confusion which ensued upon the discharge.—[Journal of Commerce.]

APPOINTMENT BY THE PRESIDENT.—Robert J. Hackley, to be Register of the Land Office for the district of lands subject to sale at Tallahassee, in the Territory of Florida, vice George W. Ward, deceased.—[Globe.]

[From the *Globe* of Wednesday.]

The following arrangements, we are informed have been entered into voluntarily by the Deposite Banks, as far as named, for the redemption of their notes in New York or Philadelphia, and the receipt of each other's notes, viz :

BANK OF BURLINGTON, Burlington, Vermont.—This Bank redeems its notes of all denominations of five dollars and upwards, *unlimitedly*, at the Merchants' Bank in the city of New York. It also receives on deposit the notes of such Banks, as are at par, either in New York, Philadelphia, or Boston.

MECHANICS' AND FARMERS' BANK, Albany.—This Bank redeems all its notes of the denominations of fifty dollars and upwards, *unlimitedly*, at the Merchants' Bank in the City of New York.—It also receives the notes of all Banks which are at par in New York or Philadelphia.

BANK OF AMERICA, New York.—This Bank will receive the notes of all the Deposite Banks situated north and east of that city, of the denominations of fifty dollars and upwards, on deposit, from Deposite Banks, which they may have received from the Receivers of sales of the Public Lands.

MECHANICS' BANK, New York.—This Bank will receive the notes of the two Deposite Banks in Boston, (the Commonwealth and Merchants') they having arranged with this Bank to redeem the same, of all denominations of five dollars and upwards.

GIRARD BANK, Philadelphia.—This Bank will receive from all the Deposite Banks, the notes of any and all the Deposite Banks north and east of Philadelphia, which they may receive from the Public Land Receivers, of the denominations of fifty dollars and upwards.

UNION BANK OF MARYLAND, Baltimore.—This Bank redeems its notes *unlimitedly*, in New York, at the Merchants' Bank; and in Philadelphia, at the Philadelphia Bank; and it receives on deposit and in payment of all dues, the notes of all good Banks which are redeemed in those cities.

BANK OF THE METROPOLIS, Washington.—This Bank redeems its notes, *unlimitedly*, in Philadelphia, at the Girard Bank, and the Farmers' and Mechanics' Bank; and in New York, at the Mechanics' Bank and Manhatten Company. It receives the notes of all Banks, above the denomination of ten dollars, which redeem their notes in either of the above cities.

BANK OF VIRGINIA, Richmond.—This Bank redeems its notes, *unlimitedly*, in Philadelphia, at the Girard Bank, and the Farmers' and Mechanics' Bank; and in New York, at the Mechanics' Bank and Manhatten Company. It receives the notes of all Banks, above the denomination of ten dollars, which redeem their notes in either of the above cities.

BANK OF AUGUSTA, Augusta.—This Bank redeems, at the Bank of America, in New York, such of its notes as may be received by the Receivers, of proceeds of sales of Public Lands.

UNION BANK OF LOUISIANA, New Orleans.—This Bank will redeem, at the Merchants' Bank in New York, all its notes which may be received by Deposite Banks, in payments on account of the Government. It will receive on deposit, from the Receivers of Public Lands, the notes of all such Deposite Banks as cause them to be redeemed in New York or Philadelphia.

COMMERCIAL BANK OF NEW ORLEANS, New Orleans.—This Bank will redeem, at the Bank of America, in New York, such of its notes as may be received by Deposite Banks for all payments made on account of Government. It will receive on deposit from the Receivers of Public Lands, the notes of all such Deposite Banks as redeem the same in New York or Philadelphia.

PLANTERS' BANK, Natchez.—This Bank, has in no instance since it became a selected Bank, refused to receive from a Public Receiver, a note of any one of the Deposite Banks. It will continue to receive on deposit, from the Public Receivers, the notes of each and all the Deposite Banks, without regard to their location.

UNION BANK, Nashville.—This Bank issues but few notes which are not made payable upon their face, either at Philadelphia or New Orleans. It will receive in payment of all due to the Government, the notes of all Deposite and other Banks, which redeem the same, either New York or Philadelphia.

COMMERCIAL BANK, Cincinnati.—This Bank will redeem at the Girard Bank, in Philadelphia, all its notes of the denomination of fifty dollars and upwards, which may be received by any Deposite Bank, to be placed to the credit of the United States. It will receive on deposit, from Public Receivers, the notes of all such Deposite and other good Banks, at Cincinnati, and its agency, at St. Louis, as redeem the same in New-York or Philadelphia.

CLINTON BANK, Columbus.—This bank will redeem, at the Phoenix Bank, in New-York, all its notes of the denominations of fifty dollars and upwards, as may be received by any Deposite Bank from the Public Receivers. It will receive on deposit, from the Public Receivers, the notes of all such Deposite and other good Banks as redeem the same either in New-York or Philadelphia.

STATE BANK OF INDIANA, Indianapolis. This Bank will redeem, at the City Bank in New-York, any of its notes of the denomination of fifty dollars and upwards, which may be received by any Deposite Bank, from the Public Receivers. It will receive on deposit, from the Public Receivers, the notes of all such Deposite and other good Banks which redeem the same either in New-York or Philadelphia.

STATE BANK OF INDIANA, Richmond Branch.—This Bank will redeem, at the Bank of North America, in Philadelphia, and the Merchants' Bank in New York, all such notes of the denominations of fifty dollars and upwards, as may be received by any Deposite Bank from the Public Receivers. It will receive from the Public Receivers the notes of all such Deposite Banks as redeem the same either in New York or Philadelphia.

BANK OF MICHIGAN, Detroit.—This Bank will redeem, in the City of New York, through their agents, Messrs. John Ward & Co., all such of its notes of the denominations of \$50 and upwards, as may be received by any Deposite Bank from the Public Receivers. It will receive from the Public Receivers the notes of all such Deposite and other good Banks as redeem the same either in New York or Philadelphia.

FARMERS' AND MECHANICS' BANK, Detroit.—This Bank will redeem, at the Bank of America, in New York, all such of its notes of the denominations of fifty dollars and upwards, as may be received by any Deposite Bank from the Public Receivers. It will receive from the Public Receivers the notes of all good Banks north of the Potowmack and Ohio rivers, and of such southern Banks as redeem the same either in New York or Philadelphia, of the denominations of twenty dollars and upwards.

MERCHANTS' AND MANUFACTURERS' BANK, Pittsburgh.—This Bank will redeem, *unlimitedly*, such of its notes as may be received by any Deposite Bank, from the Public Receivers, at the Commercial Bank in Philadelphia. It will receive on deposit, on public account, the notes of all such of Deposite or other good Banks as redeem the same in New York or Philadelphia, of the denominations of twenty dollars and upwards.

[From the *Chicago American* of August 22.]

THE INDIANS.—Our town is now crowded with Indians, who have come to receive the last payment stipulated in the Treaty of 1833. They present a singularly interesting appearance, and to eastern emigrants more especially, are objects of great curiosity. They display, in their dress and manners, the wild fancy, uncultivated taste, and native simplicity of the Indian character. Their faces and bodies are painted with grotesque figures of divers colors; gaudy trappings of silver hang upon their breasts or girt their arms; beads and other jewels hang from their ears, or noses, or load their necks; quills and feathers, and heads of birds, are woven into their hair; scarlet bands, richly interwoven with beads, from which hang bells and tassels, girt their legs. They traverse the streets on their ponies, caparisoned with scarlet cloth, with feathers and bells, or on foot with spears and daggers, pipes and tomahawks, &c. &c., entertaining the citizens with songs and dances. We suppose this is the last general visit we shall receive from them. The exploring party sent out by the Government, accompanied by a deputation of Indians, to visit the new country which was given them in exchange for the lands in this region, and to which they will probably be removed in the coming fall, have not yet returned, but will soon be here. The removal of the miserable remnants of these once powerful tribes, is not only the most advantageous to the people of the United States, but also to the Indians themselves, who are now weakened in power, diminished in number, enfeebled in constitution, and depraved in morals, by their proximity to the white people. Those tribes now west of the Lakes, were the fierce nations which inhabited the peninsula of Michigan. The warlike deeds and shrewd stratagems of Pontiac, the great Ottawa chief, are a part of the history of this country. His assassination by the Illinois Indians, was the cause of the introduction of the Ottowas & Pottawatomies into this region, who pursued the murderers of Pontiac almost to utter extermination. The destruction of a great number of them upon "Starved Rock" at Utica, is an account well known to all. The Illinois Indians were pursued until they took refuge upon the top of this Rock, which is 150 feet high, standing on the banks of the Illinois river, and were besieged by their fierce pursuers, until they were *starved to death*, and for many years after, their uncoffined bones whitened the summit of the rock. But these powerful tribes are following the Illinois, the Peorias, the Kickapoos, the Kaskaskias, &c. who now scarcely retain their identity as separate tribes. A removal beyond the Mississippi is doubtless the true policy for them.—

They will not be reclaimed from the Indian customs so long as there are hunting grounds unsubdued.—The march of civilization and improvement towards the West, brings blasting and mildew upon them. They do not acquire the knowledge of the white men but adopt their vices without imitating their virtues. While we triumph in our own prosperity, and look with warm hopes to the future, we have the melancholy example before our eyes of the increased degradation and destruction of a mighty people. We know that *our* success is *their* fall.—And however ardently we may desire their improvement, we find that the Indian character has in the main thwarted all efforts for its elevation.—They possess a propensity for savage life which will not harmonize with the existence of civil institutions; and though many efforts have been made to Christianize them, by teaching them the truth of Christianity, yet these labors cannot be said to be generally successful. And judging from the history of the last three hundred years, we may suppose they will continue to retire before the progress of enlightened improvement, to the last thicket, and when worsted there—will find their grave.

LIEEL.—Ira C. Paine, of Painsville, Ohio, has recovered a verdict of \$52.50 against Eber S. Howe, publisher of the Painsville Telegraph, for printing "his name in *small italics*" as Secretary of a political meeting, in connection with remarks reflecting upon his character.—[Buffalo Adv.]

The question which of late has been often asked us, we can now answer, viz: the large new building now being put up on Ellis' Island, is a magazine, in which the powder required for our naval operations will be stored. It is a spacious depot, and its location is so remote from a dense population, that if it should ever explode, few, if any lives would be lost.—[Gazette.]

Mr. Clayton, the Western aeronaut, narrowly escaped a sudden and violent end, during a balloon ascension which he made on the 21st August at Lexington, Ky. He had risen to an elevation of about two miles, when the perilous occurrence alluded to took place. We copy his own account of it.

At 23 minutes after 5, when at an altitude of two miles, I discovered that the gas had completely filled the balloon, and that the neck had become entangled between the cords by which I was suspended, preventing the surplus gas from escaping, and confining the valve cord so that I could not open the valve.

I immediately busied myself in liberating the valve cord, and while in the act of doing this, the neck and cord were snatched with violence from me, the upper portion of the balloon burst with a tremendous noise, and I and the whole fabric fell two or three hundred feet, with the velocity of a stone. The rapid descent was then a little checked; and now the most critical moment of my life was at hand—a moment that required calmness, presence of mind and activity, for an awful scene presented itself. The lower part of the balloon, by the violent resistance of the atmosphere, in descending, had been pressed against the surface of the net-work, and formed into a parachute, of about twenty-five feet in diameter; but through the centre of this imperfect parachute I could behold the naked valve, the small meshes of the net, and a great portion of the silk on each side, which formed the resisting surface, hung in ribbands, dashing from side to side, and producing a noise like that of shattered sails of a ship in a tempest. This hurricane noise was not produced by the rapid descent alone, but by the violent oscillatory and rotary motion of the parachute. At one moment I was almost in a horizontal line with the parachute, and then I was dashed through the air to a level on the opposite side; thus describing an arc of nearly a semi-circle, the radius of which was about fifty feet; and at the same time I and my car were whirling with sickening velocity.—While in this situation I succeeded in dashing overboard all my bags of ballast, which weighed about 80 lbs.

In four minutes I descended about a mile, and reached a region of dense clouds. At this time I untied the upper end of my cable and held it in my hands, threw over my anchor and allowed it to swing at the full length of the rope (150 feet); it was thrown at every vibration far above the level of my car.

On passing beneath the cloud, I saw the town of Athens a little to the south west of me.—In five minutes more I reached the ground with a pretty severe shock sustaining no injury worth mentioning. The whole balloon or parachute, was instantly flat on the ground, a mass of ribbands. A few dark faces (negroes) appeared at a short distance from me, with outstretched hands—screaming—frightened to death at the huge machine that came whirling over their heads, and still more frightened when they saw me spring out of it.

GENERAL LAND OFFICE.—On Tuesday Ethan Allen Brown, of Ohio, was duly installed as Commissioner of the General Land Office, vice Elijah Hayward, resigned, who, we understand, returns to the West.—[Nat. Intel.]

A STRANGE STORY—AND AS TRUE AS STRANGE.—We were told the following singular story by a planter of high respectability, on Friday last.—Early in the season he purchased work horses for his plantation, and now, at noon, they feed in the open air. The poultry, as is customary, assembled where the horses are fed. A few days ago, hens with their broods of chickens approached the troughs where the horses were eating, when it was observed that one of the horses left his food, and by moving his head near the ground, collected the young chickens in a huddle, and grabbed a mouthful of the brood, which he actually ate. Nor did he stop at that, but before relief could be afforded, he got a second mouthful which he also ate. The gentleman added that his slaves have lost many of their chickens, and the horse is accused of having eaten them. This must be a Kentucky horse—for the Kentuckians are said to have half horse and half alligator, and the one we speak of appears to have much of the latter animal in his composition, with a little touch of the snapping turtle.—[Louisville Jour.]

